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## CONGENITAL HYPERTROPHIC PYLORIC STENOSIS


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Congenital hypertrophic pyloric stenosis has been written about frequently and its treatment has become moderately well standardized; nevertheless, in the series of over a thousand cases that have occurred in the Children's Hospital, situations have arisen which either are not emphasized in the literature or are in need of clarification. It should be noted that this report deals with patients operated on by various members of the surgical visiting and resident staff.

The mortality of this disease in any children's hospital should not rise above 1 or 2 per cent. To attain such a result requires attention to the details of preoperative and postoperative care as well as to the operative technic. One should also be on the alert for complications or the occasional associated anomalies.

In 1939 Ladd and Gross [1] reported a series of 765 cases of pyloric stenosis treated in this hospital. In 1933 Lanman and Mahoney [2] had reported 405 of these cases. The present report deals particularly with an additional 380 patients operated on between 1939 and 1945.

### ETIOLOGIC FACTORS

Many factors have been reported to bear a causal relation to congenital hypertrophic pyloric stenosis. These have been repeatedly observed and confirmed by numerous observers, but it is still impossible to assess their true significance and the exact role they play.

*Sex.*—Males predominate in all reported series. In our hospital approximately 85 per cent of the cases occurred in male infants. No one has ever offered a satisfactory explanation for this overwhelming incidence.

*First Born.*—Pyloric stenosis is reported to occur more frequently in the first born of a family, averaging 50 to 60 per cent of cases in most series. Our own figures bear this out, as our patients represented first births in approximately 55 per cent of cases.

*Race.*—We have noted no particular racial disposition in our series. While it is true that certain countries report fewer cases, it seems likely that this is due to nonrecognition of the cases rather than to a smaller incidence. We have never observed a case in a Negro infant, although this is apparently pure chance, as Donovan [3] reports about 2 per cent of his cases to be in Negroes, while figures from the Charity Hospital in New Orleans [4] show 30 per cent of their cases occurring in Negro babies.

*Heredity.*—Families with the disease present in several siblings or found in successive generations are not infrequent. We have encountered one set of identical twins each with pyloric stenosis. Reports from the literature would indicate that this disease has never been reported in only 1 of 2 identical twins. Pyloric stenosis has also been reported in stillbirths and in a seven months fetus. These are all strong arguments in favor of a hereditary factor, but no satisfactory explanation has ever been advanced as to exactly what this factor is.

### PATHOGENESIS

We have found no one of the various theories of pathogenesis completely acceptable and believe a combination of views necessary to explain the salient features of pyloric stenosis.

1. The presence of the pyloric tumor at birth is generally agreed on, and indeed its occurrence has been reported in premature infants and stillbirths.

2. Work hypertrophy is the second factor of interest. The views of Lehman (quoted by Szilagyi and McGraw [5]) are interesting in this regard. He believes that work hypertrophy results as the pyloric muscle attempts to overcome a resistant sphincter.

3. Pylorospasm is the third factor to be considered.

4. We feel that the combination of pylorospasm and a work hypertrophied pyloric tumor together with edema of mucous membrane from the mechanical irritation of the curds best explains the clinical picture of congenital hypertrophic pyloric stenosis. The onset of symptoms (usually between the second and fifth weeks), the severity of the vomiting and the ultimate development of complete pyloric obstruction are directly related to the degree of hypertrophy present in the individual case. The role of these factors may be depicted in an occasional case by barium swallows at intervals, showing a progression of changes from the early normal pyloric canal to the gradual narrowing and lengthening as work hypertrophy occurs and eventually showing the roentgenographic picture of advanced pyloric obstruction. Such a series of roentgenograms correlate definitely with the clinical picture


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1. Ladd, W. E., and Gross, R. E.: Abdominal Surgery in Infancy and Childhood, Philadelphia, W. B. Saunders Company, 1941, chapter I.
2. Lanman, T. H., and Mahoney, P. J.: Congenital Hypertrophic Pyloric Stenosis, Surg., Gynec. & Obst. **47**: 398, 1933.
3. Donovan, E. J.: Congenital Hypertrophic Pyloric Stenosis, Ann. Surg. **95**: 174, 1932.
4. Romano, S. A. (with McFetridge, E.): The Essential Considerations of Congenital Hypertrophic Pyloric Stenosis, Internat. Surg. Digest **25**: 131-150 (March) 1938.
5. Szilagyi, D. E., and McGraw, A. B.: The Problems of Infantile Pyloric Stenosis, Surgery **13**: 764, 1943.

of a baby with normal feeding habits at first, then the gradual onset of regurgitation, and finally the explosive projectile vomiting of severe pyloric obstruction.

### PATHOLOGY

The essential changes in pyloric stenosis are limited to the pylorus itself. Other pathologic variations are purely secondary and are related to the obstruction present with resultant starvation.

Grossly the pylorus is seen as a spindle shaped, olive sized mass with a pale glistening serosal surface. On palpation the tumor is cartilaginous in consistency, extends for varying distance onto the gastric wall and ends abruptly on its duodenal end. In postmortem specimens the interior of the pyloric canal is almost completely closed by folds of mucous membrane, with a sharp termination of the stenosis at the duodenal end.

Microscopically the important finding is a tremendous hypertrophy of the circular, smooth muscle layer together with an actual increase in the number of smooth muscle fibers. Sections of the mucosal layer reveal edema and a slight leukocytic infiltration.

### SYMPTOMS AND SIGNS

*Dehydration.*—Since the majority of patients with pyloric stenosis are 4 weeks of age or more when first seen, the evidences of dehydration are usually well defined. The infant is thin and wizened looking, with almost no subcutaneous fat and with the skin falling in folds. The eyeballs may be soft, the fontanel sunken and the infant feverish. The mother will frequently volunteer that the baby voids infrequently.

*Vomiting.*—This symptom usually appears in the second or third week of life. Vomiting is at first merely regurgitation and at infrequent intervals. As the obstruction becomes more complete, the baby vomits explosively after almost every meal. However, the child is continually hungry and will feed eagerly even immediately after vomiting. The vomitus never contains bile, although in late cases it may contain old blood due to edematous gastric mucosa.

*Weight.*—As vomiting continues, the child at first fails to gain in weight and then later there is actual weight loss. At the time of operation the infant is usually below his birth weight.

*Scanty Stools.*—These babies do not suffer from constipation, but rather as the obstruction progresses there is less and less fecal residue and the babies pass small, hard, dry, constipated looking stools. If these infants have diarrhea, it is a symptom of serious import.

*Alkalosis.*—Prolonged vomiting or misguided gastric lavage may lead to a huge loss of electrolytes with hypochloremia, and the infant may show severe alkalotic respirations, general hypertonicity and even convulsions. Fewer babies in such a condition are being seen as the diagnosis is made earlier and earlier.

*Peristaltic Waves.*—These may be seen best during feeding. Waves may be noted to pass from left to right, across the child's epigastrium, increasing in volume as more and more feeding is taken and ending abruptly as the child vomits projectilely. While abdominal patterning may be seen occasionally in undernourished babies, the huge waves present in patients with pyloric stenosis are characterized by appearing only in the epigastrium.

*Pyloric Tumor.*—Palpation of an olive sized mass in the right upper quadrant is the most important finding for confirming the diagnosis. The infant should be fed to afford relaxation. One should not confuse the pole of the right kidney with the tumor. We have palpated a definite tumor in over 98 per cent of cases. The percentage of cases in which one can successfully palpate a tumor is directly related to the number of cases one has an opportunity to examine, to the method of palpation and to the patience of the surgeon. The ideal moment for the successful palpation of the tumor is immediately after the infant has vomited.

### LABORATORY DATA

The red blood cell count and hemoglobin values are essentially normal in these babies. Determinations should not be done until after the baby is hydrated, as otherwise one may be misled by the hemoconcentration present. Urine examination is usually negative except for the presence of acetone due to ketosis. The serum protein is frequently a low normal value after hydration, but for some reason these infants rarely show a nutritional edema. In the occasional alkalotic baby the serum chloride is of some importance, and its level is directly related to the severity of the child's obstruction. Formerly, plasma and vitamin C determinations were made and found to be uniformly low.

### ROENTGENOLOGIC EXAMINATIONS

The more facile one becomes in palpating a pyloric tumor, the fewer will be the indications for roentgen confirmation of the diagnosis. A plain film of the abdomen may be of no value if the baby has just vomited. The administration of a thin barium mixture is therefore desirable in obscure cases but not without danger, owing to the possibilities of aspiration. If examination shows almost complete retention, a tube should be then passed and the barium removed.

The essential roentgen features of diagnosis are (1) gastric dilatation, (2) intermittent hyperperistalsis, (3) a greatly elongated pyloric canal which is only 2 to 3 mm. in width and (4) delayed gastric emptying time. Retention of over 75 per cent of a barium meal at the end of three hours indicates definite pyloric obstruction.

### DIFFERENTIAL DIAGNOSIS

*Pylorospasm.*—The status of pylorospasm as a distinct clinical entity we do not propose to discuss at length. However, there is a definite group of cases that resemble classic pyloric stenosis babies very closely. Whether their symptoms are due to "pylorospasm" or to mild forms of organic stenosis we do not know. In any case there are clearcut differentiating points.

A detailed history in such babies will reveal a classic intermittence of symptoms with varying intervals of well-being. Hypertonicity is present but responds well to sedatives and antispasmodics. An occasional case may show all the obstructive symptoms of a pyloric stenosis, but generally they have a milder course. In addition, the onset of symptoms is usually later and there is no male preponderance.

*Infectious Vomiting.*—Infection as the cause of the baby's symptoms may be easily ruled out by a careful physical examination. Diarrhea is apt to be present, and also fever and leukocytosis. Again, the symptoms are relatively mild and of course there is no palpable tumor.

*Improper Feeding.*—Infants often develop complaints comparable to pyloric stenosis shortly after leaving the

obstetric ward. Careful analysis should therefore be made of the amount, type and actual mechanics of the feeding. Careful feeding by a competent nursing staff for two or three days will often completely resolve the child's difficulties.

*Intracranial Injury.*—The symptoms of babies with intracranial hemorrhage usually date from birth. They vomit without relation to feeding, may be cyanotic, fail to nurse, convulse and show an irregular pulse and respirations. Lumbar puncture reveals grossly bloody spinal fluid. Subdural hematoma resulting from intracranial injury frequently causes vomiting, convulsions, irritability and stupor, but these symptoms usually become evident later than in babies with more diffuse hemorrhage. Subdural taps reveal excessive xanthochromic fluid. Xanthochromic fluid or blood clearly differentiates intracranial injury from pyloric stenosis.

*Chalasia.*—We have recently begun to recognize a new symptom complex for which the word chalasia of the esophagus has been suggested by Dr. Edward B. D. Neuhauser[6] of our x-ray department. These babies vomit persistently but lack other signs of pyloric stenosis. The condition may be definitely differentiated from pyloric stenosis by roentgenologic examination which shows the gastric cardia in a state of continuous relaxation, with frequent regurgitation of the barium which has been given. Babies with this difficulty respond well to a therapeutic test of thickened feedings while they are kept in Fowler's position.

*Extrinsic Intestinal Obstruction: Malrotation.*—A malrotated colon causing duodenal obstruction may show peristaltic waves in the epigastrium. The vomiting may be explosive, but the vomitus will be bile stained and no tumor can be palpated. Under such circumstances a roentgenologic examination should be made to reveal the true diagnosis.

*Volvulus.*—A volvulus may be present in cases of malrotation. Again, the onset is early, the vomitus is bile stained and a roentgenogram is helpful. In the presence of a strangulating obstruction, differentiation is not difficult.

*Intrinsic Intestinal Obstruction.*—Duodenal stenosis is the only type which may be confusing. Usually the symptoms date from birth, the vomitus is bile stained, no tumor is palpable and a barium meal offers considerable assistance.

### PREOPERATIVE CARE

Pyloromyotomy should never be regarded as an emergency procedure. The aim in every case should be to restore the baby to as nearly normal a nutritional state as possible before operation. Correction of dehydration, ketosis and low chlorides by adequate fluid therapy are as important as surgical skill in lowering mortality rates in this condition. Two or three days of preparation with parenteral fluids should be the minimum, and occasionally in cases of long standing with severe obstruction five to six days of preparation may be necessary before the baby is a suitable operative risk.

In general, one should maintain the infant's fluid intake at 2½ to 3 ounces per pound daily. In this clinic two intravenous infusions and two subcutaneous clyses are given daily. Five per cent dextrose in water, 10 cc. per pound of body weight, is given intravenously and isotonic solution or half isotonic solution of sodium chloride in 2.5 per cent glucose, 15 cc. per pound of body weight, is given subcutaneously.

In the poorer risk debilitated patients with long-standing obstruction and malnutrition, whole blood transfusions raise the serum protein level and in addition bring the red blood cell count and hemoglobin values to satisfactory levels. Plasma protein transfusions improve the general condition of the patient and materially aid wound healing. The amounts of plasma and whole blood given correspond to 10 cc. per pound of body weight. One hundred mg. of vitamin C given twice daily in the clysis fluid will restore rapidly the depleted plasma vitamin C level of these babies. Normal serum protein levels and adequate vitamin C therapy encourage a well healed wound.

Amigen solutions either intravenously or subcutaneously offer still another source of increased protein intake in such babies. Full formula feedings are maintained during the preoperative period regardless of the vomiting in the majority of cases, as small amounts of feeding will be absorbed. We have been gratified in a few cases to have infants retain a fair proportion of a feeding consisting of equal parts of 10 per cent amigen and 10 per cent glucose in the face of decided pyloric obstruction.

### TREATMENT

It is almost the universal consensus that surgical treatment is the treatment of choice. This opinion has been held at the Children's Hospital since 1915.

### PREPARATION FOR OPERATION

Conservation of body heat is a primary consideration in these debilitated infants. The extremities are wrapped in several layers of sheet wadding, and the baby is pinned to the operating table with a hot water bottle under his back to provide heat and improve operative exposure. The temperature of the operating room should likewise be carefully regulated. The skin of the abdomen is cleansed with ether followed by half strength tincture of iodine and the exposed surface quickly draped. A small urethral catheter is passed down through the nose, and the stomach contents are aspirated. The catheter is then left in place during the operation to deflate the stomach, which improves respiration and facilitates anesthesia.

### ANESTHESIA

Premedication consists in the administration of atropine sulfate in appropriate doses. Barbiturates and morphine are unnecessary and perhaps dangerous. Open drop ether is used almost routinely in this clinic, and it has proved to be eminently satisfactory. Relaxation is excellent, with no danger of evisceration, and in the hands of expert anesthetists leaves little to be desired. If one experienced in infant anesthesia is not available, probably local procaine infiltration of the abdominal wall is the method of second choice. We have found this method satisfactory for a small number of patients who are particularly bad risks. If used as a routine, however, its disadvantages are likely to be only too apparent. The operative procedure is prolonged, relaxation is poor, and sudden straining or crying of the infant may result in evisceration of the intestine with its attendant difficulties and shock.

### OPERATIVE TECHNIC

A great variety of abdominal incisions have been employed by different surgeons. Formerly, most of our cases were done through a right rectus wound. How-

6. Neuhauser, E. B. D.: Personal communication to the authors.

ever, in the past five years the gridiron incision of Robertson [7] has been the approach of choice in this clinic. Some men prefer a high midline incision. Meredith [8] varies the right rectus by transversely opening the posterior rectus sheath and peritoneum, and Davis [9] has recently advocated a transverse incision through the skin, subcutaneous tissues and anterior rectus fascia, longitudinal splitting of the rectus muscle and a transverse peritoneal opening.

The gridiron incision is made 2 inches in length parallel to and one fingerbreadth below the costal margin, starting at the lateral edge of the right rectus muscle, and is then extended laterally. Careful hemostasis is practiced and subcutaneous bleeders are tied with silk (0000 or 00000 in size). The external oblique and internal oblique muscle layers are then divided in the direction of their fibers and the transversalis muscle and peritoneum opened transversely as one layer. With the liver edge retracted, the antrum of the stomach presents and the pylorus is easily delivered into the wound. Occasionally it is necessary to palpate the tumor and then "milk" it into the wound with the right index finger. A ½ to ¾ inch incision through the serosa and superficial musculature is then made on the relatively avascular superior anterior surface. The incision should continue onto the gastric wall but should stop just short of the duodenal end of the tumor. The bulk of the hypertrophied muscle may then be divided bluntly with the scalpel handle. The blades of a hemostatic snap are then inserted into the incision in the pylorus and opened. This separates the remaining muscle fibers and allows the mucosa to pout above the level of the serosa. In this part of the procedure the main problem is to separate completely the muscle of the duodenal end without opening the lumen of the duodenum. Occasionally oozing is encountered from the pyloric incision, which usually can be controlled by pressure with a warm saline pack. The release of traction on the stomach will also relieve the engorgement of the vessels and reduce troublesome bleeding to a minimum. Rarely it may be necessary to ligate a persistent bleeding vessel.

The pylorus having been returned to the abdomen, the peritoneum and transversalis layer are closed with a continuous suture of 0000 chromic catgut. Each muscle layer then is sutured with interrupted 00000 silk and the subcutaneous tissues and skin are approximated with the same suture material. The infant is then wrapped in warm blankets, thoroughly suctioned and rebreathed with oxygen for five to ten minutes, the stomach catheter is then removed and the baby is returned to the ward.

## POSTOPERATIVE CARE

Occasionally it may be necessary to give an intravenous injection of glucose or plasma on the operating table but usually the postoperative fluids are deferred until the baby has returned to the ward.

Many slightly different postoperative feeding programs have been successfully used for these babies by various men. The following feeding regimen has been in use in this hospital for many years and has been completely satisfactory:

Feedings are begun as soon as the baby is conscious, and fluid is given every two hours for the first thirty-six hours. The composition of the feedings is roughly as follows and varied according to individual indications:

2 feedings of 1 ounce of sterile water,
4 feedings of 1 ounce of whey,
4 feedings of ½ ounce of whey and ½ ounce of breast milk,
4 feedings, decreasing whey by 1 drachm and increasing breast milk by 1 drachm at each feeding, and
4 feedings of breast milk with 1 drachm increase with each feeding.

This regimen covers the first thirty-six hours postoperatively and at its conclusion the baby is receiving 1½ ounces of breast milk every two hours. Parenteral fluids are necessary during this period to supplement the baby's oral intake and fulfil the fluid requirement of 2½ to 3 ounces fluid per pound in twenty-four hours. Occasionally a small amount of regurgitation may be noted during the first postoperative day, but this is usually negligible in amount.

The feeding schedule is now lengthened to three hours and the breast milk gradually increased to 2½ ounces per feeding. If breast milk is not available, a 40 calory modification of water, karo and equal parts of whole milk and skimmed milk may be substituted. When the stools and feeding habits are normal, a whole milk formula containing 50 to 55 calories per pound is substituted and after ten to fourteen days the interval between feedings may be increased to four hours.

Postoperative transfusions of plasma and whole blood are given as indicated by the red blood cell count and the serum protein and hemoglobin values.

The skin sutures are removed on the fifth and sixth postoperative days and the baby discharged home on the ninth or tenth day.

Close follow-up visits are then made and the formula is adjusted as necessary until satisfactory and prolonged weight gain is assured.

## COMPLICATIONS

*Duodenal Perforation.*—In any large series of cases in which adequate pyloromyotomies have been done the duodenal mucosa may be opened in a few instances. This is easily understandable in view of the abrupt termination of the hypertrophied muscle at its duodenal end and the importance of separating these distal muscle fibers if complete relief of the obstruction is to be accomplished.

If this accident should occur, prompt recognition is essential, as otherwise a fatal peritonitis may result in these debilitated infants. One may first notice a small area of pouted everted mucosa or slight bile staining or most often the escape of a few bubbles of gas.

In over a thousand cases of pyloric stenosis in which operation has been performed during the past thirty years the duodenum has been accidentally opened twenty-three times. Nine of these perforations occurred in the 380 cases seen between 1939 and 1945. Fortunately, in each case the perforation was noted and immediately closed. The stomach mucosa was also opened once during this period. There were no untoward results following perforation in any of these recent cases. In patients operated on before 1939, three deaths occurred following perforation but only one of these was due to peritonitis.

A perforation of the mucosa at the duodenal end of the pyloric tumor merely indicates that the incision has been extended too far. In our experience the simplest and most effective repair is to close the incision by one or two sutures of fine silk at the duodenal end. The inlying gastric tube is placed on suction postoper-

7. Robertson, D. E.: Congenital Pyloric Stenosis, Ann. Surg. **112**: 687, 1940.
8. Meredith, E. W.: Pyloric Stenosis, Pennsylvania M. J. **43**: 1686, 1940.
9. Davis, H. H.: Right Rectus Gridiron Incision in Pyloric Stenosis, Surg., Gynec. & Obst. **78**: 213, 1944.

atively for forty-eight to seventy-two hours and the baby maintained on parenteral fluids. In the more recent cases sulfonamide therapy has also been given. If the child's condition is satisfactory the tube is removed on the third or fourth postoperative day and routine pyloric feedings are started.

*Otitis Media.*—Otitis media has been a frequent complication, occurring in 24 cases in the past six years—an incidence of 6.3 per cent. In 6 of these cases (25 per cent) both ear drums were involved. Myringotomy was necessary in 5 instances. The infection was presumably due to the frequent vomiting causing blocking of the eustachian tube orifices. The occurrence of otitis media did not seem to affect the prognosis in any way.

*Wound Infection and Evisceration.*—There were 11 instances of wound infection in these recent 380 cases (3.0 per cent). In 2 cases evisceration occurred but successful resuturing was performed. One child required a secondary herniorrhaphy but was then completely well. All 3 of these cases occurred in right rectus wounds.

*Pneumonia.*—Pneumonitis was found as a complication in 9 instances. In a 4 pound (1,815 Gm.) premature infant pulmonary infection apparently resulted from massive aspiration of mucus postoperatively and ended fatally. In the remaining 8 cases whether infection was present preoperatively as the result of aspiration and accentuated by inhalation anesthesia or represented a postanesthetic pneumonitis could not be determined.

*Malrotation.*—Five cases of malrotation of the colon with duodenal obstruction were noted in this group of 380 cases. In 3 cases the duodenal obstruction was recognized and repair of the malrotation was effected at the time of pyloromyotomy. One of these 3 cases occurred in a 4 pound premature infant with congenital heart disease. In the fourth case symptoms of duodenal obstruction became evident after the pyloric obstruction had been relieved. In the fifth case operation was performed at 11 days of age for malrotation. Four weeks later the cardinal findings of pyloric stenosis appeared and pyloromyotomy was carried out. In all 5 cases a Ladd's procedure [10] was done successfully, with complete relief of symptoms. In 2 babies an incidental malrotation was found at the time of pyloromyotomy. Since there was no evidence of duodenal pressure or obstruction no additional operative procedure was done.

## OPERATIVE RESULTS

In this series of 380 cases of pyloric stenosis treated surgically there have been 4 deaths. A brief report of each case together with the essential postmortem findings follows.

J. McC., a 4 pound 4 ounce (1,928 Gm.) premature infant with classic findings of pyloric stenosis associated with cyanotic spells, was otherwise normal. Pyloromyotomy was performed. Postoperatively the child had three severe cyanotic spells and died five hours after operation. Postmortem examination revealed severe bilateral bronchopneumonia with aspirated gastric contents.

S. S., a 6 pound 6 ounce (2,898 Gm.) Mongol infant, was diagnosed as having pyloric stenosis. The infant died eighteen hours postoperatively with a central nervous system type of respiratory arrest. Autopsy revealed numerous defects of the central nervous system together with anomalies of the kidneys and ureters.

F. B. was operated on for pyloric stenosis. The baby did well for five days and then developed an uncontrollable diarrhea. On the ninth postoperative day he experienced severe cyanosis and labored respirations one hour following a blood transfusion. Autopsy revealed pulmonary edema and a terminal bronchopneumonia due to aspiration.

E. W., a 5 pound 12 ounce (2,608 Gm.) 3 week old infant who had an uneventful pyloromyotomy, began to show signs of intestinal obstruction on the third postoperative day with abdominal distention and bile stained vomitus. Reexploration was planned, but the baby developed sudden respiratory distress and cyanosis and died suddenly a few hours before the scheduled exploration. Postmortem examination revealed a stenosis of the ileum.

The satisfying steady decline in mortality following pyloromyotomy at the Children's Hospital may be seen from the accompanying table. In the past three and one-half years 225 consecutive cases of pyloric stenosis have been treated surgically without a fatality.

*Decline in Mortality Following Pyloromyotomy*

| Year | Cases | Deaths | Mortality, per Cent |
|---|---|---|---|
| 1915-1935 | 588 | 35 | 5.95 |
| 1936-1945 | 557 | 5 | 0.89 |

## SUMMARY

1. One thousand, one hundred and forty-five patients with pyloric stenosis have been operated on by various members of the Surgical Service of the Children's Hospital since 1915.

2. Eighty-five per cent of cases occur in males and particularly in the first born of a family.

3. The essential pathologic finding is hypertrophy of the circular muscle layer of the pylorus.

4. The cardinal findings are (*a*) dehydration, (*b*) projectile vomiting, (*c*) scanty stools and urine, (*d*) visible gastric waves and (*e*) a palpable pyloric tumor.

5. Proper fluid therapy is the most important aspect of preoperative care to lessen operative risk.

6. Pyloromyotomy under ether anesthesia is the procedure of choice, preferably through a Robertson gridiron incision.

7. Complications include duodenal perforation, otitis media and pneumonia, wound infection and evisceration or severe diarrhea.

8. Operative mortality in 557 cases seen during the past ten years is 0.9 per cent. Recently 225 patients with pyloric stenosis have been operated on consecutively without a fatality.

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10. Ladd, W. E.: Surgical Diseases of the Alimentary Tract in Infants, New England J. Med. **215**: 705 (Oct. 15) 1936.

**Possibilities of Cooperative Research.**—One of the most striking characteristics of an expert investigator is his strong individualism. He has his own personal curiosities, his own plans for work and his own ways and methods for carrying out his plans. It is difficult for him to engage with other experts as a member of a team. New ideas for research come to mind in the course of his investigation that enticingly lead him away to fresh fields for discovery. He wishes to follow the prospects he foresees, unchecked by obligation to associates. He acts thus not because he fails to respect or appreciate highly what others are doing but because he is satisfying an eager personal interest. What proves attractive to him, furthermore, may not prove attractive to others. Indeed, it may be difficult for him to justify to others the course he intends to pursue.—Cannon, Walter B.: The Way of an Investigator, New York, W. W. Norton & Co., Inc., 1945.

# THE PERPETUATION OF NERVOUS DISORDERS BY ARMY PSYCHIATRIC PROCEDURE

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Psychiatry was prepared for World War II. The previous twenty years had marked the golden age in psychiatric research and treatment. Mental hygiene had reached actively into the community in close working relationship with educational, law enforcement and social welfare agencies. Enlightenment on the nature of mental disease had opened the way to clinical observation in the schools and playgrounds. State hospitals were clearing the umbrage of insanity. Mental sufferers were submitting voluntarily to commitment under the assurance of early cure and continued respectability after discharge. Conferences were dynamic with discussion about interpersonal relations, parents of nervous children, sibling rivalries, character dominance and the prevailing culture as causes of maladjustment. Psychoanalytic principles had been incorporated into psychiatric thinking for an understanding of the psychologic mechanisms operating in the germination of mental disease. Tests and questionnaires were prolific in the evaluation of aptitudes, emotional instabilities and personality trends. Projective procedures were curtailing projections by the examiners. Psychiatrists were "looking at" every discipline of personal influence. Then the war came and with it the opportunity to look at the results of their labors.

The Office of the Surgeon General had organized its staff of psychiatric consultants. Psychiatry for the first time received equal recognition in rank with medicine and surgery. At each of the service command headquarters a psychiatric consultant was appointed for the purpose of counsel and direction. Psychiatrists were assigned to the staffs of the promptly constructed general and station hospitals. Induction centers were staffed with the leading psychiatrists in the community. Reception centers, replacement training centers and ports of embarkation had psychiatrists.

Psychiatry was faced with a challenge. Manuals and bulletins were hastily devised and distributed covering the classification and disposition of anticipated casualties. The setup seemed to be perfect. In the discussion which follows, attention is directed to some of the reasons for the failure of the Army to utilize the most skilled psychiatric talent ever assembled in one organization in the history of medicine.

In the course of the first year the psychiatric problem was serious. The numbers of cases taxed the experience of the examiners in the necessity for snap diagnoses and dispositions formulated to meet manpower requirements. Many psychiatrists were assigned to general medical duties. They became gradually more isolated in the field under the orders of their immediate command. Wider became the gap between them and the headquarters which issued official psychiatric directives. Disposition and CDD boards were cluttered with cases. Patients were remaining on the wards from two to three months in no relation to condition or progress. Many did not see a psychiatrist for weeks at a time. Seventy per cent of the time of the psychiatrist on duty in the Zone of the Interior was consumed with clerical work and board meetings. The outpatient departments had long rosters of "goldbricks" on sick call. In the course of the remaining years of the war a drama of psychiatric debacle was unfolded which threatens to perpetuate mental invalidism for many years. The incidence, the prolongation and the refractoriness of mental disease at the present time together comprise the indictment against Army psychiatric procedure.

The enlisted men in a service unit assigned to a prisoner of war camp provide a rich harvest for psychiatric consultant work. These men represent largely the "eight balls" in the Army, men who by reason of disability or inefficiency filter through a variety of assignments after repeated board appearances and periods of hospitalization to land in maintenance and repair, latrine orderly and guard duty over prisoners of war. Seventy-two per cent of the enlisted strength claim chronic ailments which disqualify them for duty. A psychiatric study of 380 men of this group reveals that 30 per cent of the total strength of the unit are unfit for duty of any kind in the military service.

Among the three principal types of serious personality disorders, namely the psychoneuroses, the constitutional psychopathic states and the psychoses, the second type predominates. There were few psychotics. Many of the inadequate types of psychopaths were schizophrenic, but in the interest of quick disposition they were classified constitutionally inadequate. The schizophrenic, like a chameleon, changes color from one hospital to another, and the disposition of his case is deferred. The psychopath remains black on his record alone, and his disposition is perfunctory.

These men were studied with attention to distinctly positive elements in the psychogenesis of each condition. In accordance with official directive the principal psychiatric categories were prohibited by name in the case records. In their place were substituted the complaint, the symptoms or descriptive paraphrases. This official directive, by its evasion of positive diagnosis, resulted in confusion and misinterpretation among psychiatrists, internists and commanding officers alike, spread distrust for psychiatric nomenclature generally and placed the psychiatrist in the position of temporizer or an agent to maneuver dispositions to fit the occasion regardless of the diagnosis. Symptoms and subtypes in the principal categories of nervous disorders blend imperceptibly without demarcation. This fluidity was exploited mercilessly by official procedure so as to force the diagnosis to serve exclusively the military duties exacted of the soldier. Accordingly, the diagnosis varied with the purpose of the examination and the pending requisitions, such as those in induction centers, reception centers, replacement training centers, combat zones and special service units. This explains the wide disparities in the recommendations on the same man under different military disciplines. Actually some paraphrase of psychoneurosis or psychopath or feebleminded or normal could be attached to the same soldier in agreement with the nature of the requisition which he had to be applied against, without regard for his fitness for those duties or for his own mental liabilities.

The psychiatrist was prevented from exercising his trained judgment in the practical problems which confronted him. Too frequently his opinion was accepted only when it supported the preconceived views of his commanding officer, a Regular Army physician, promoted to administrative authority at the outbreak of hostilities with no knowledge of psychiatry. This is

exemplified in the statement of a commanding officer of a large station hospital. "We had no psychoneuroses in World War I. Where are they coming from now?" War manpower had to be served, to be sure. It should not have been purchased, however, at the cost of more than one-half million mental misfits carried along for an indefinite period of six months to three years.

Instructions and directives issued from time to time from the Office of the Surgeon General carried no applicability to critical problems in the various units. Administrative psychiatrists operated for the most part only with other administrative branches of the service. Clinical psychiatrists worked detached, with little opportunity for independent action. Psychiatry became an expediency and in some instances an additional military discipline bearing no semblance to a branch of medicine.

Orders, in the form of "ground rules," to ignore the psychogenic factor in disabilities hampered treatment as well as diagnosis. Even in the presence of organic changes conspicuous on physical examination a large portion of the disability may be of psychogenic origin. In conditions where organic changes are not demonstrated it is reasonable also to suspect strong psychogenic influence, as in lumbosacral strain, neuritis, forms of arthritis, cardiovascular instabilities, angiospasms and gastrointestinal dysfunctions. Psychosomatic medicine is not new. Time and tradition establish psychoneurosis as illness, not an epithet. Army psychiatry dropped this view and with it all the experience gained in this field from World War I. Fortunately overseas units did not share this handicap.

### ILLUSTRATIVE CASES

Case reports follow in accordance with standard classification. The psychoneuroses comprise neurasthenia, anxiety states, conversion states, obsessive reactions and reactive depressions.

A private aged 37, with three years' service, complained of an "all in feeling and nervousness." He had headaches and noticed that he was absent minded when he was given several orders at the same time. Prior to military service he had been healthy, working hard as a farm hand. Overseas he contracted malaria, and for the past two years he had been admitted to hospitals with relapses of chills and weakness. He complained of stomach trouble and felt short of breath even at rest. Sometimes he was too weak to sit up. He had acquired a neurasthenic state secondary to the repeated hospitalizations which his original relapses required. He declared vigorously that he would like to return to duty, but he was at a loss to know just what he was capable of doing. The variety and vagueness of complaints with lack of energy, irritability and weakness distinguished this reaction from conversion neurosis. This soldier received ten reassignments and transfers. Each hospitalization period simply marked an interlude between transfers. His final psychiatric diagnosis was interpreted as qualification for a prisoner of war camp assignment.

In anxiety states there is a feeling of tension and anxiety dominating the soldier's reactions, changing in intensity from time to time in the same situation. They are precipitated by fears and sudden shocks, loss of friends and relatives, marital upsets and feelings of guilt.

A private aged 25, with two years and seven months' service, complained of headaches, ear trouble and pains in the abdomen. He did not mention nervousness at first. He reluctantly admitted that he had been a little nervous all his life. He seemed to be ashamed of his timidity in childhood. He was always very sensitive. He cried when he was reprimanded by his school teacher. He had been decidedly a home boy. He went only with one girl since he was 16 years old and he was engaged to marry her. He had been inducted on limited service because of nervousness. He had been hospitalized five times for a total period of one year and three months. On interview he choked and stuttered. He repeated "I'm giving you all the truth about myself. I'm not trying to get out of anything. I am not bucking for a discharge. Religion is the only thing that holds me up. I often pray for help. I'll do anything they tell me to do, but to tell you the truth for months at a time I have not been given anything to do."

Allowances were made for the soldier at every post. He had been exempted from basic training, and subsequent assignments involved only light duty. This soldier required no more of an emotional upset than separation from home and family to develop an anxiety state similar to that arising from fear and sudden shock in combat. In this case also frequent reassignments as a substitute for psychotherapy led to a dependent invalid state. His assignment to this camp exemplified the universal misunderstanding of psychiatric diagnosis.

Conversion states are defense mechanisms against disappointments and conflicts where the original idea is repressed and the attendant emotion attaches itself to one special physical system resulting in some such defect as paralysis, convulsions, blindness or pain.

A private aged 24, with five years' service, had a good previous work record and had adjusted satisfactorily before he was inducted. He had rarely been sick. He had thirty months' overseas duty, with seven months' combat experience. He was evacuated by rotation to the United States. He had been hospitalized seven times for indigestion and pains in the stomach. When he was shipped out from his last post he stated that he had been told that he was due to appear before a board in the hospital, but that there was no empty bed at the time and maybe the next post would be able to take care of him. For the past six months he had been losing weight. He had weak tired feelings. Since the date of cancellation of his board review he had had an aggravation of gastric pain and vomiting. This was construed to be an attempt to evade duty. Although he had been examined thoroughly for peptic ulcer he insisted that he had some organic condition which the doctors could not find. He had been transferred to three new posts since he returned from overseas. Even though he had been hospitalized repeatedly, he had received no psychiatric disposition.

A sergeant aged 26, with fifteen months' service in the China-India-Burma theater of operations, made a request to see the psychiatrist. He had a fear of being in crowds. Since he arrived in the United States he had tried to avoid people on the sidewalks. He thought that he was being stared at. He agreed that there was nothing logical in this feeling. He did not think that he looked different from other persons. He would walk four or five blocks out of his way down side streets to avoid crowds on the sidewalk. He had been in isolated sections among the same men for months in the jungles of India. He thought that perhaps this experience had something to do with his feelings in crowds at this time. When he asked his commanding officer at his previous post if he could see a psychiatrist he was given K. P. duty. He was told that if he reported for sick call again he would be transferred. He gave the information that he was very sensitive in childhood. He was fondly attached to his only sister. Recently his sister began having fainting spells. She was being treated by a physician three times a week with "some kind of body massage." He did not know what the treatments consisted of and both he and his mother had been trying to persuade her to see a psychiatrist. He worried because his sister never told them much about the treatment. He had always been curious "about psychiatrists and the way they made people well." His sister never had an attack at home or when she

was alone but always among crowds on the street, in the movies or in stores. It was precisely such places which created panic in him. He believed that he needed a psychoanalysis. The soldier's worry about his sister formed the basis for his phobia. He accused himself for not being able to help her. Whenever he received news about her he became more doubtful of her recovery. He never noticed any nervous trouble of his own until his sister began having spells. Fears for her health were displaced to a situation of his own unconscious creation, of identical locale, in the form of a phobia of crowds on sidewalks. His interest in psychiatry came from a desire to help his sister by securing treatment for his malady, which bore a close resemblance to hers. By identification, as he was cured he visualized his sister's recovery also.

This soldier had received no psychotherapy. "Goldbricking" had to be discouraged. The scarcity of courts-martial for malingering attest to the success of this discipline. And the price paid for it is the perpetuation of mental disease in thousands of genuinely disabled men.

In reactive depression states a realistic chain of depressive circumstances is recounted, in logical and understandable sequence, of sufficient emotional significance to justify the reaction. The resulting depression in spirits is not always manifested openly by tearfulness and agitation and is probably more disturbing in its suppressed forms with inner turmoil of emotion. Soldiers with a reactive depression were dealt with harshly. The noncoms had little tolerance for them. They put them through toughening up tactics. Credit is due them however for their intelligent interest and responsiveness when they could be contacted about individual cases. Here the difficulty was that general hospitals carried no provision for contact with line officers, and communication was cumbersome. In 1944 reconditioning centers were organized under station hospital administration, too few and too late to salvage any material fit for duty from the chronic invalidism then prevalent. The convalescent centers which grew out of this experiment provided the only facility for psychiatric treatment under official directive since the outbreak of hostilities. Then the war was over.

A private aged 23 had been in the service for six months, assigned to the interrogation of German prisoners. He stated that he had "been overworked, called to duty four times without sleep for fifty-two hours." He was born and reared in Germany. He had been exposed to the prevailing brutality in his community for several years before coming to this country. He recited incidents of many beatings at the hands of the young Nazis at school. He came to this country at 16 on the affidavit of his uncle, leaving behind a 10 year old sister. He worked as a factory hand in a radio plant. He made strenuous efforts to raise enough money to bring his sister also. He heard reports of the suffering which was imposed on the Jewish families. One week after he had deposited money in the bank to assure visa for his sister, war was declared and the United States consul left Germany. Subsequently he read of the deportation of Jewish children to Poland, where they were placed in ghettos. He got news from the prisoners at this camp about the wholesale mutilation and the incineration alive of the occupants of these ghettos, and the fate of his sister was constantly before him. He became depressed and weak and did not have strength enough to complete basic training. He was getting worse in the course of processing prisoners. Examination revealed a reactive depression with anxiety and tension and hatred initiated by years of bitterness toward the Nazis for their inhuman practices. He stated that he tried to do his duty in the compound as interpreter, but his contacts with the prisoners always revived memories of the suffering which they caused his family. As he spoke he trembled and perspired and tried hard to choke back his sobs. "It's my little sister that is always in front of me day and night. She would be 16 now." These apprehensions produced a paralyzing state of depression which handicapped him for the most meager responsibilities.

This soldier's assignment to a German prisoner of war camp cannot be justified by military necessity.

A private aged 24, with four years' service, had spent forty months overseas. He had a rigorous assignment in outposts, where he contracted malaria and "jungle rot." During his periods of best health his performance was so commendable that he was promoted successively to the grade of sergeant. After returning to the United States by rotation he was assigned to military police duty. He was directing traffic on his post when a woman drove her automobile through a formation as retreat was sounded. He "flagged" her down and admonished her that if she did that again she would be taken to the provost marshal's office. She was indignant and drove on. A short time later he was admitted to the hospital for treatment of his "jungle rot." Here he received notice that he was demoted to the grade of private because of "discourtesy and misconduct." The woman had written to the commanding general that the soldier's insolence had caused her to have a miscarriage. The soldier was then transferred to a prisoner of war camp. Examination revealed a tense, anxious and depressed condition. He stated "I'm scared—I never knew what it was to be afraid overseas but back here everything scares me—I can't sleep—I don't have any spirit—I try to do my guard duty but I can't even think—I don't have any life in me—I find myself crying without knowing what I am crying about." Although he did not speak about his demotion he exhibited suppressed emotion as he was questioned about it. He strained himself to conceal his humiliation over the loss in grade. He suppressed the idea itself, but feelings of remorse broke through periodically so that he cried "without knowing why."

After four years' service this soldier had his first interview with a psychiatrist at a prisoner of war camp.

The constitutional psychopathic states are characterized by their noncompromising reaction. These soldiers are unable to follow conventional rules and resist official standards of conduct. Their records are marked by inefficiency, alcoholism and frequent disciplinary infractions.

A private aged 29 had been in the service for one year without any assignment for the past six months because of inefficiency. He had been taken out of basic training because he could not keep up. At this camp he had led a desultory existence ineffective even for simple maintenance jobs. At an early age he had been orphaned. He was reared by an older sister. He was a behavior problem in school, engaging in many fights. After a series of misdemeanors he was committed to a reform school. He never held a job more than a few weeks. He was never self supporting. In the Army he accomplished no more than he did in civilian life. He would leave his duties and go to his barracks to lie down. He left the post without a pass. He received company punishments and court-martial. He had been a drag on the training program from the time he was inducted. Once while he was guarding prisoners he left to get a drink of water. He thought it to be "all right because there was another guard at the end of the detail." This was the first occasion of referral to a psychiatrist for examination.

A private aged 24 with two years and eight months' service was referred because of neglect of his personal appearance and "senseless behavior." He would not shave unless he was ordered. He was reported to be discourteous, impudent and insubordinate. He became drunk "on a few beers" and had to be assisted to his barracks. He never received a company punishment or court-martial. The family history revealed pathologic heritage. A maternal aunt was psychotic. His mother was epileptic. His father was a chronic alcoholic addict, and all his father's relatives were vagrants. He had

always been a problem. He was ill tempered, flew into rages and resented correction. At the same time he was timid among other boys, afraid to go out at night and always carried a knife. He never held a job because he could not get along with his boss. He was never able to support himself and yet he married three times. As a soldier he was stubborn, disregarded orders and wilfully made trivial mistakes "to make the serg-ass sore." When he found himself about to get into trouble he went on sick call with weak eyes, painful feet and cramps. He brought his wife to one of the dances at the Officers' Club to "prove to her that the USO dances were better." During interview he was indifferent. He tapped on the desk, started to light a cigaret and wanted to chew gum. He asked "What are you, a nut doctor? I'm crazy as Hell. Say, could I get out if I went nuts?"

This soldier was constitutionally psychopathic. It is interesting to note that, according to his own story, he enjoyed more independence and personal satisfaction in the military service than he did in civilian life. His only complaint was that his wife needed more money. He had never previously been considered a case for psychiatric study.

In the asocial class of psychopath there is a conspicuous lack of consideration for the feelings and rights of others. These men are irritable, arrogant and dishonest.

A private aged 20, with two years' service, was referred from the stockade where he was awaiting trial for absence without official leave. He had a record of frequent such offenses. He had two courts-martial for assault. The soldier came of good sturdy lineage of Southwest pioneers. His father was a farmer of even disposition but firm and stoic in morals. He was reared in a family atmosphere of inspiring devotion, which was reflected in the behavior of all the other five children. He was nervous, restless and ill tempered. His mother told him that he was more trouble than all the other children put together. He had never been ill in his life. At 13 he viciously attacked his teacher. He then ran away from home and roamed over the country. He learned to drink among vagrants. At 15 he had a bar room brawl and beat up three grown men. He was sentenced to six months in a reform school. At the end of thirty days he was released on the provision that his parents remove him from the state. He returned in a few weeks. He was arrested six times for drunkenness. Three days after he was inducted he was absent without official leave. After his last court-martial he was released by transfer to a staging area. He received a delay en route, overstayed his leave and landed in the guard house. In the course of the psychatric interview it was revealed that he had never been able to get along with his father, although he admitted that he was always treated kindly. He was childishly attached to his mother. He hated to see his father come home from work. He would not admit any ill feeling, but he recalled that he always wanted to leave when his father was around the house.

In his reaction this soldier represents an arrested emotional growth, remaining at a mother fixation level, with resistance against identification with the father. Subsequently every disciplinarian became a father image which he freely attacked. He had never previously been referred for psychiatric study.

Mental deficiency is a form of constitutional psychopathic state in which the principal handicap for the performance of duty is inaptitude. Screening at the induction centers eliminates the seriously defective. Illiteracy is not itself indicative of mental deficiency. There were twelve illiterate soldiers at this camp. Three were seriously feebleminded, assigned to guard duty.

A private aged 23, with two years and six months' service, was referred because of fainting spells. Two sisters had epilepsy. One was confined as psychotic to a state institution. The soldier had never attended school. His only job was railroad track repair. At 16 he began having attacks of unconsciousness. On one occasion he fell and rolled down an embankment, receiving cuts and bruises. He stated that he told his sergeant that he had spells but the "sergeant said that he had spells too." He was court martialed at his first post for having whisky in his possession on guard duty. He explained, "The guy that was coming on duty next told me to take it so it would be there when he came on." Another time he was "chasing" prisoners past headquarters and failed to salute the general. "He was busy talking. I did not think he saw me." He stated that at his last prisoner of war camp he did guard duty every other day and "stayed drunk all the time." He had spells about three times a year. This was his first hospital admission.

This type of behavior is typical of mental deficiency. The case is complicated by epilepsy. His lack of responsibility, indifference to correction and untrainability are in line with his level of intelligence. This case typifies the career of ten mentally defective soldiers referred for examination because of noneffectiveness. One mental defective has been carried along for four years with repeated reassignments from latrine and orderly room work to guard duty who is illiterate, has a disabling stutter and cannot urinate in the presence of other soldiers.

Chronic alcoholism was present in many of the psychopathic states. It is an expression of neurotic character or mental disease. In Army procedure it is not so considered. The term is used exclusively as an indictment in routine disciplinary measures. In this one field of maladjustment commanding officers found frequent use for psychiatrists. They ordered a clearance of nervous disability and accordingly an indictment against any soldier whom they wanted to dispose of. It then became the psychiatrist's duty to name the soldier a psychopath. As one psychiatrist phrased it, "In a 368 disposition state only the worst you can find out about the man's character, even if you have to exaggerate. Get him out." The resulting discharge without honor was of little concern. One soldier returning from combat overseas with a good conduct citation and a rating of excellent character at his previous assignments was eliminated in this manner. On the other hand a soldier could be admitted to the hospital in an alcoholic stupor with delirium tremens and be discharged to duty in five days as an anxiety state with no mention of alcoholism in his diagnosis. This was not a solitary outpost incident. This is recorded in one of the largest West Coast general hospitals. Psychiatry served no purpose as a fact finding instrument.

"Goldbrick" refers to malingerers who feign illness consciously in order to evade duty. The wide disparity between the popular use of the epithet and the actual diagnosis of malingering invalidates its application. Practically all the soldiers included in this study were "goldbricks." The War Department establishes clear specifications for the indictment of malingerers. Psychiatric study reveals that in most instances in which there is conscious intent to avoid duty by pretending illness there is also present a serious personality distortion which obscures, in pathologic significance, the conscious intent to deceive. Besides, by War Department regulation a psychiatric opinion to the effect that a soldier is consciously exaggerating his symptoms automatically prescribes that soldier to a court-martial. Psychiatrists followed orders, but they shied from the actual initiation of a purely penalizing procedure. They labeled the soldier anxiety state instead and the real

malingerers gladly accepted the nomination. In this manner again a fundamental psychiatric principle, namely that of developing insight and the capacity for self appraisal, was defeated by Army psychiatric procedure.

Psychoses are rarely seen among the enlisted men at a prisoner of war camp. The reason can only be speculated. They may have been screened out before they reached this level of assignment by many periods of hospitalizations and board appearances. It might be said that the only condition which militated against assignment to a prisoner of war camp was insanity of the type that a staff sergeant could recognize.

A private aged 33, with three years' service, was referred because he had been acting queerly in the past few days. He was found singing at the top of his voice on guard duty. Another time he had walked away from detail into a private home, where he was found drinking coffee. Off duty he sat in his barracks biting his fingernails, with a blank stare. The soldier was an artist, and prior to enlistment he taught portrait painting at a fashion academy. He entered the service because he wanted to assist at camouflage. He failed to graduate from the officers' candidate school. He had spent five weeks in the locked ward of a station hospital two years previously. When he was discharged from the hospital he was assigned to a prisoner of war camp. On psychiatric interview he presented a tense stare with the appearance of deep preoccupation. He became self conscious when his attention was held. He quickly jerked his hand from his mouth when he was questioned about his nail biting. He explained that he was afraid that some one would think that he was insane. He complained "I can't think things out because I always hear some one saying what I am thinking." This soldier for two years mechanically performed his duties. He possessed no independence in feeling or thinking. He was not readily accessible, and he did not seek medical aid. He never voluntarily reported for sick call the entire three years that he was in the Army. He had an advanced dementia precox reaction. He had been assigned to the camp as another attempt at rehabilitation.

If the psychosis is not sensationally conspicuous it passes unnoticed because the decline in mentality is obscured in the course of numerous transfers and short-term assignments. In this case even a record of confinement to a locked ward failed to fix attention on the psychiatric liability of reassignment. The psychiatrist had not overlooked the problem.

SUMMARY

In the evaluation of the mental disorders at the prisoner of war camp attention was given to the soldier's account of his prior experiences, his reactions to his present situation and his personal disqualifications for duty. The digressions in the reactions toward such experiences as are common to all soldiers determine their pathologic character. Hysteria conversion states were almost endemic. Morale was low. The restrictions which were applied to the prisoners radiated over the activities of the men who guarded them. By reason of assignment to a prisoner camp the enlisted men came to include themselves in the same low caste which enshrouded the prisoners. The assignment was a fertile field for the exaggeration of mental disease, which, ironically enough, seemed to be, under current regulations, the essential qualification for just this assignment.

The personnel represented the seepage from all organizations in the Army, largely consisting of soldiers who had been rejected by every other branch of the service. They had a career of many periods of hospitalizations and many reassignments caused by repeated applications against requisitions received. Thirty per cent of the enlisted strength of the unit were unfit for service of any kind. Psychopathic reactions predominated. Among the 380 men who were serious psychiatric casualties only 15 had received more than one interview with a psychiatrist. Two hundred and twelve had never previously been referred to a psychiatrist since the time they were inducted.

This exposition of failure on the part of the psychiatric administrative branch of the Army to organize and employ available psychiatric skills is presented with a view of explaining the universal dissatisfaction with psychiatric results in the zone of the interior during the war. The gigantic rehabilitation load facing the country today stands evidence. Psychiatry is now applying its resources in civilian life in a manner to compensate for its forced ineffectiveness in the Army.

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# NITROGEN MUSTARDS IN THE TREATMENT OF NEOPLASTIC DISEASE

**Official Statement**

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The chemical and biologic properties of the nitrogen mustards have recently been summarized.[1] Through the cooperation of the Chemical Warfare Service, United States Army, the National Defense Research Committee and the Committee on Medical Research of the Office of Scientific Research and Development, the National Research Council and with aid from the Jane Coffin Childs Memorial Fund for Medical Research, studies were undertaken to ascertain the value of the clinical use of the nitrogen mustards in the treatment of neoplastic disease. *Tris*(β-chloroethyl)amine hydrochloride and methyl-*bis*(β-chloroethyl)amine hydrochloride are the only compounds of the nitrogen mustard series thus far investigated in this association. The studies were begun under a contract between the Office of Scientific Research and Development and Yale University, and authority to carry out the work was subsequently given by the Committee on Atypical Growth of the National Research Council to the University of Chicago Medical School, the University of Utah Medical School and Memorial Hospital, New York. Thus far, a total of 160 patients suffering from neoplastic disease (chiefly lymphoma, leukemia and allied conditions) has been treated with these agents. Detailed clinical reports of the therapeutic results obtained are now in process of publication.[2]

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The present status of methyl-*bis*(β-chloroethyl) amine hydrochloride and *tris*(β-chloroethyl) amine hydrochloride (nitrogen mustards) in the treatment of neoplastic disease.

1. Gilman, A., and Philips, F. S.: The Biological Actions and Therapeutic Applications of the β-Chloroethyl Amines and Sulfides, Science **103**: 409-415 (April 5) 1946.

2. Goodman, L. S.; Wintrobe, M. M.; Dameshek, W.; Goodman, M. J.; Gilman, A., and McLennan, M. T.: Clinical Experiences with the Use of Methyl-*bis* (β-Chloroethyl) Amine Hydrochloride and *Tris* (β-Chloroethyl) Amine Hydrochloride (Nitrogen Mustards) in the Therapy of Hodgkin's Disease, Lymphosarcoma, Leukemia and Certain Allied and Miscellaneous Disorders, to be published. Jacobson, L. O.; Spurr, C. L.; Guzman Barron, E. S.; Smith, T.; Lushbaugh, C., and Dick, G. F.: Studies on the Effect of Methyl-*bis*(β-Chloroethyl)Amine Hydrochloride (DEMA) on Malignant Disease of the Hemopoietic System, to be published. Karnofsky, D. A.; Craver, L. F.; Rhoads, C. P., and Abels, J. C.: An Evaluation of Methyl-*bis*(β-Chloroethyl)Amine Hydrochloride and *Tris*(β-Chloroethyl)Amine Hydrochloride (Nitrogen Mustards) in the Treatment of Lymphomas, Leukemia and Allied Diseases, to be published.

The present therapeutic status of the nitrogen mustards is herewith summarized and is presented for the information of the medical profession. The agents are available for experimental purposes only through the Committee on Growth, National Research Council, in cooperation with the Chemical Warfare Service.

1. Methyl-*bis*(β-chloroethyl)amine hydrochloride has been used more extensively than *tris*(β-chloroethyl) amine hydrochloride. On the basis of this experience the methyl-*bis* compound seems to be preferable, as venous thrombosis is not so likely to follow at the injection site.

2. The dosage of the methyl-*bis* compound recommended as a single course is 0.1 mg. per kilogram intravenously on four successive days (a total of 0.4 mg. per kilogram). This recommendation is based on experience in which larger total doses given as a single course have proved to be hazardous.

3. The toxic effects of methyl-*bis*(β-chloroethyl) amine hydrochloride are (*a*) severe local inflammatory reaction if the material escapes into the tissues at the site of the intravenous injection, (*b*) varying degrees of nausea and vomiting occurring one to eight hours after a single dose and continuing for three to twenty-four hours, associated less constantly with anorexia and weight loss, weakness and headaches and (*c*) damage to the blood forming organs. The alterations in the peripheral blood which may result from a course of treatment follow in the order of their frequency. 1. Leukopenia (lymphopenia followed by neutropenia) may be moderate to severe and may persist for one month or more. Symptoms due to agranulocytosis have rarely been observed. 2. Normocytic anemia similar to that which may follow conventional x-ray therapy is not infrequent. 3. Bleeding tendencies, at times accompanied by thrombocytopenia, may occur. They include bleeding from the gums and rectum and small purpuric spots, but such findings are rare after the ordinary course of treatment.

4. The following general comments may be made on the therapeutic value of the nitrogen mustards thus far examined for the treatment of the neoplastic diseases mentioned in this report:

(*a*) They are not a cure for such neoplastic diseases as have been studied.

(*b*) The nitrogen mustards in large enough doses are injurious to many types of tissue; they appear to exert their greatest effects on rapidly growing tissue, presumably either normal or neoplastic.

(*c*) Their predominant toxicologic effect is damage to normal hemopoietic function. The extent of this injury is the limiting factor in determining the amount that can be given to an individual. In some cases the hemopoietic injury exceeds the effect on the tumor.

(*d*) The tumor regressions induced by these compounds (even with maximum dosages) are temporary, with maximal persistence rarely extending beyond several months.

(*e*) The effects of the nitrogen mustards are in many respects similar to those of x-rays. It should be noted, however, that the great advantage of radiation therapy is that it can be given locally.

5. *Treatment of Hodgkin's Disease.*—In patients with early and slowly progressing disease, regression of lymph nodes and symptomatic remissions lasting from four to eight months may follow a course of treatment with methyl-*bis*(β-chloroethyl)amine hydrochloride. Usually, however, improvement, as evidenced by disappearance of fever, feeling of well being and weight gain, continues only from two weeks to a few months and is followed by fairly rapid relapse. The relapses may respond to further therapy, but the remissions induced are progressively shorter in duration. Decreased fever and general symptomatic improvement have been the most constant and conspicuous effect of this compound.

Cases responding favorably show regression of lymph nodes and occasionally decrease in size of the liver and spleen, but in the more advanced or active forms of the disease such regressions are less frequent and if they occur are short lived. The more rapidly progressive the disease, the shorter the clinical remission.

Large masses of matted lymph nodes, invasion of the disease beyond the lymph nodes, and bone lesions, in general, may not show a favorable response, even though general symptomatic improvement including relief from pain due to bone involvement may occur. The anemia of Hodgkin's disease is sometimes improved. Skin lesions due to Hodgkin's disease may or may not be affected, and pruritus is only slightly and inconstantly relieved.

In the late stages of the disease and when x-ray treatment is without effect, methyl-*bis*(β-chloroethyl) amine hydrochloride seldom produces a prolonged improvement but has in some instances significantly interrupted the progress of the disease.

In the early, slowly progressive case with localized disease, x-rays are still the preferred method of treatment. If the disease becomes widespread and systemic effects are present, such as fever, anorexia, weakness and anemia, treatment of the localized lesions with x-rays may not produce a satisfactory systemic remission. In such cases the methyl-*bis* compound has proved to be of considerable use in causing temporary symptomatic remissions, and the treatment may be repeated as long and as often as the hematologic status permits.

6. *Treatment of Lymphosarcoma.*—The highly aggressive, rapidly growing type of lymphosarcoma usually has not been significantly affected by maximum doses of the methyl-*bis* compound. In such disease x-ray therapy likewise has proved not to be of much value.

The type of lymphosarcoma characterized by normal or elevated white blood cell count, consisting chiefly of lymphocytes, and with enlarged lymph nodes diagnosed histologically as lymphosarcoma, may respond satisfactorily to the methyl-*bis* compounds, as evidenced by a prolonged depression of the white blood cell count and regression of enlarged nodes. There is little doubt that radiation therapy is also effective in cases of this type.

7. *Treatment of Giant Follicle Lymphoma (Brill-Symmer's Disease).*—The methyl-*bis* compound may produce a therapeutic effect in early or relatively benign cases; x-ray therapy is also effective and its use is to be preferred.

8. *Treatment of Lymphatic Leukemia.*—The methyl-*bis* compound does not appear to be of value in the treatment of acute lymphoblastic leukemia. In the slowly progressing and chronic forms it will lower the white blood cell count and decrease the size of the lymph nodes with somewhat less effect on an enlarged liver and spleen, but it may cause a fall in hemoglobin levels. Far advanced cases with severe anemia do not respond favorably, and the use of the methyl-*bis* compound in this situation is not recommended.

In general, slowly progressing forms of lymphatic leukemia respond favorably to cautiously administered methyl-*bis* compound as well as to x-rays, but the former because of its toxicity is regarded as unnecessarily hazardous for use in early stages.

9. *The Treatment of Myeloblastic Leukemia.*—The methyl-*bis* compound appears to be of no value in the treatment of acute myeloblastic leukemia. In the chronic forms of the disease either x-rays or the methyl-*bis* compound are usually useful. When a greatly enlarged spleen is present, local irradiation seems preferable.

10. *Miscellaneous Types of Cancer.*—The experimental use of the nitrogen mustards in the treatment of any active, extensive, neoplastic process is probably justified if other methods of control have proved to be without benefit. Preliminary and limited trials in melanosarcoma, metastatic mammary and cervical carcinoma, multiple myeloma and sympathicoblastoma have not been encouraging. A limited but favorable experience with the methyl-*bis* compound in inducing temporary symptomatic remissions in anaplastic carcinoma of the lung has encouraged further trials in this type of disease. The clinical response of polycythemia rubra vera to the methyl-*bis* compound appears to be comparable to results obtained with radioactive phosphorus.

### FUTURE WORK

It is planned to continue laboratory and clinical work with these agents in the hope that certain types of cancer may be found to be unusually sensitive to the action of the nitrogen mustards, that a compound allied to the methyl-*bis* compound with a more selective destructive action on cancer tissue may be discovered, and that technics for improving the therapeutic effectiveness of the nitrogen mustards may be developed. The value of combining nitrogen mustard with other types of cancer therapy will also be investigated.

Methyl-*bis*(β-chloroethyl)amine hydrochloride will be distributed free to qualified institutions for investigational purposes on application to the Committee on Growth, National Research Council, Washington, D. C.

The members of the Committee on Growth are:

Cornelius P. Rhoads, Chairman, Memorial Hospital, New York.
Florence R. Sabin, Secretary, the Rockefeller Institute for Medical Research, New York.
A. R. Dochez, College of Physicians and Surgeons, New York.
A. Baird Hastings, Harvard University Medical School, Boston.
Charles B. Huggins, University of Chicago Medical School, Chicago.
Donald F. Jones, the Connecticut Agricultural Experiment Station, New Haven.
C. C. Little, the Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine.
Carl R. Moore, University of Chicago, Chicago.
John Morton, University of Rochester School of Medicine and Dentistry, Rochester, N. Y.
James B. Murphy, the Rockefeller Institute for Medical Research, New York.
Eugene P. Pendergrass, the University of Pennsylvania Medical School, Philadelphia.
Howard C. Taylor Jr., New York University Medical College, New York.
Merle A. Tuve, Carnegie Institution of Washington, Washington, D. C.
M. C. Winternitz, Yale University School of Medicine, New Haven, Conn.

## PULMONARY CALCIFICATION AND SENSITIVITY TO HISTOPLASMIN, TUBERCULIN AND HAPLOSPORANGIN

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In a recent paper we[1] reviewed the problem of calcification occurring in the chests of persons who are insensitive to tuberculin. At that time we outlined the clinical and epidemiologic evidence for suspecting a benign form of histoplasmosis or some other biologically related infection to be the cause of this phenomenon.

These studies have been undertaken in order to throw light on certain clinical observations that there exists in many sections of the United States a prevalence of pulmonary calcification far in excess of that which can be explained on the basis of tuberculosis as revealed by tuberculin cutaneous testing. In the past twenty years there has been an increasing interest in this subject, and there have appeared a number of papers which show a consistent discrepancy between the tuberculin tests and the prevalence of pulmonary calcification. In these papers 27 to 83 per cent of young persons were found to have pulmonary calcification, a phenomenon generally accepted as indicative of tuberculosis, yet in each study one half or less of the patients were found to have positive tuberculin tests. These reports were the outcome of studies conducted with few exceptions on young people living in or adjacent to the western Appalachian plateau or the eastern slope of the Mississippi River basin and the bordering states of the western slope of the Mississippi River basin.[2]

While anergy or loss of sensitivity to tuberculin from complete healing of the tuberculous process may be an acceptable explanation in some cases, we do not believe that this can explain the decided prevalence of pulmonary calcification in this area. We were challenged to investigate other reasons which might explain this phenomenon.

Cox and Smith,[3] Aronson, Saylor and Parr[4] and others have shown that coccidioidomycosis is in certain areas of the West responsible for a primary complex which goes on to calcification. The suggestion of Smith[5] that histoplasmosis occurs most frequently in the area where pulmonary calcification is high in those whose reaction to tuberculin is negative seemed to offer a good working hypothesis.

We accordingly began to perform cutaneous tests with extracts of Histoplasma capsulatum and to look for nonfatal examples of the infection. The fungus H. capsulatum had been reported to cause acute and subacute granulomatous lesions progressing with great regularity to a fatal termination. Our studies have enabled us to observe examples of a benign form of histoplasmosis and to discover that many people react to extracts of the fungus. A remarkable correlation

From the Department of Pediatrics, Vanderbilt University School of Medicine.

1. Christie, Amos, and Peterson, J. C.: Pulmonary Calcification in Negative Reactors to Tuberculin, Am. J. Pub. Health **35**: 1131, 1945.
2. A nearly complete bibliography of these studies is to be found in footnote 1.
3. Cox, Alvin J., and Smith, Charles Edward: Arrested Pulmonary Coccidioidal Granuloma, Arch. Path. **27**: 717 (April) 1939.
4. Aronson, Joseph D.; Saylor, Robert M., and Parr, Erma L.: Relationship of Coccidioidomycosis to Calcified Pulmonary Nodules, Arch. Path. **34**: 31 (July) 1942.
5. Smith, Charles E.: Coccidioidomycosis, M. Clin. North America **27**: 790, 1943.

between these observations and the presence of nontuberculous pulmonary calcification has been shown.[6]

It is our purpose in this paper to elaborate this thesis further by presenting the results of cutaneous tests and roentgenographic studies in another group of children.

## MATERIAL AND METHODS OF STUDY

In this study children from an institution for child care were examined. The home, a boarding school, is located in Davidson County, Tenn., on the outskirts of Nashville in rolling farm country. From routine observations made over a period of several years in our clinic we knew that in the group there were many who had pulmonary calcifications but who did not react to tuberculin. The stability of the population enabled us to make a nearly complete study of the whole group, and the fact that the children were from various sections of the state of Tennessee enabled us to make observations on the intrastate geographic distribution of the various phenomena observed. This feature of these observations will be reported in a subsequent paper.

The age distribution of this group is shown in table 2. The sex distribution is approximately equal. The children all attend school on the premises.

Roentgenograms of the chests were made with portable equipment on 4 by 5 inch stereoscopic films. They were read for the presence or absence of calcification by Dr. E. F. Harrison of the Division of Tuberculosis Control, Tennessee Department of Public Health.

All children included in the studies were given intradermal tests with 0.1 mg. of old tuberculin, a preparation of histoplasmin [7] and haplosporangin,[8] an antigen derived from Haplosporangium parvum, a fungus isolated by Emmons and Ashburn [9] and shown by them to be related to granulomatous lesions of the lungs of certain rodents.

The interpretations of the cutaneous tests were made as follows: They were read at seventy-two hours. Edema surrounded by a large area of erythema was present in all positive reactions, and an area of induration for more than 5 mm. around the site of inoculation was present. Reactions were called negative if no induration was present. It may be stated that very few equivocal reactions were encountered.

The roentgenographic studies and the cutaneous testing were carried out independently to preclude any possible basis for bias.

## RESULTS

Three hundred and forty-four children were tested for sensitivity to tuberculin, histoplasmin and haplosporangin, and roentgenograms of their chests were made.

Seventy-four (21.5 per cent) reacted to 0.1 mg. of tuberculin. One hundred and eighty-three (53.2 per cent) had intrathoracic shadows interpreted as calcifications. Two hundred and fifty-two (73.2 per cent) reacted to histoplasmin. None of the children reacted to haplosporangin. These results are shown in table 1, from which it may be seen that in this study, as in our previous report, there is a much greater incidence of pulmonary calcification than of sensitivity to tuberculin. More children had calcifications in the absence of sensitivity to tuberculin than had it in conjunction with sensitivity to tuberculin. There were more children sensitive to histoplasmin than there were children who had calcifications.

It is of interest to point out that tests with a second fungus extract, haplosporangin, failed to elicit a single clearly positive reaction. Although there were in the group four tests with this antigen which showed slight erythema, less than 5 mm. in diameter, none showed induration.

If the occurrence of calcified pulmonary nodules and the sensitivity to tuberculin and histoplasmin are shown by age groups it may be seen that in the youngest group represented, aged 5 to 9 years, only 1 of the 27 was sensitive to tuberculin, while 13, or almost 50 per cent, had calcifications and 19, or 68 per cent, were sensitive to histoplasmin. In the older age groups this general relationship was maintained, but the differential values were not as striking. These observations are shown in table 2. The age of appearance of calcification is intermediate between the age observed for the development of sensitivity to tuberculin and that observed for the development of sensitivity to histoplasmin. It is obvious from this, as was shown in our previous study, that the age at which sensitivity to histoplasmin develops and that at which calcification develops are in such relationship that they might be directly associated. The age at which sensitivity to tuberculin appears lags so far behind that for the deposition of calcium that it would not seem to have the same degree of association.

Table 3 reveals the number and percentage of children with calcifications according to their reaction to tuberculin and histoplasmin. This table shows that 42 (70 per cent) of 60 children who reacted to both histoplasmin and tuberculin had pulmonary calcification. One hundred and twenty (62.5 per cent) of 192 children who reacted only to histoplasmin were found to have calcifications in their chests. Seven (50 per cent) of the 14 who reacted only to tuberculin had calcifications in their chests. These figures suggest that pulmonary calcification occurs less frequently in relation to sen-

TABLE 1.—*The Occurrence by Number and Percentage of Sensitivity to Tuberculin, Histoplasmin and Haplosporangin and the Presence of Intrathoracic Calcifications in Tennessee Children*

| Number Examined | Tuberculin Positive | | Histoplasmin Positive | | Haplosporangin Positive | | Intrathoracic Calcifications | |
|---|---|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % | No. | % |
| 344 | 74 | 21.5 | 252 | 73.2 | 0 | 0.0 | 183 | 53.2 |

TABLE 2.—*Number and Percentage of Tennessee Children with Calcifications: Their Reactions to Histoplasmin and to Tuberculin by Age Groups*

| Age | Number in Age Group | Tuberculin Positive | | Histoplasmin Positive | | Calcifications | |
|---|---|---|---|---|---|---|---|
| | | No. | % | No. | % | No. | % |
| Total..... | 344 | 74 | 21.4 | 252 | 73.2 | 183 | 53.4 |
| Under 5 yrs.. | 0 | 0 | | 0 | | 0 | |
| 5- 9 yrs..... | 27 | 1 | 3.6 | 19 | 67.9 | 13 | 46.5 |
| 10-14 yrs..... | 195 | 38 | 19.5 | 126 | 64.8 | 100 | 51.3 |
| 15-19 yrs..... | 122 | 35 | 27.7 | 107 | 87.5 | 70 | 57.3 |

6. Palmer, Carroll E.: Nontuberculous Pulmonary Calcifications and Sensitivity to Histoplasmin, Pub. Health Rep. **60**: 513, 1945. Christie and Peterson.[4]

7. The histoplasmin used in this study was the same lot as that used in our previous study.

8. This antigen was supplied by Dr. Charles E. Smith. Half of the group received 0.1 cc. of 1: 1,000 dilution, and the other half received 0.1 cc. of 1: 100 dilution.

9. Emmons, C. W., and Ashburn, L. L.: The Isolation of Haplosporangium Parvum N. Sp. and Coccidioides Immitis from Wild Rodents: Their Relationship to Coccidioidomycosis, Pub. Health Rep. **57**: 1715, 1942.

sitivity to tuberculin than in relation to sensitivity to histoplasmin. That calcifications should occur more commonly when the child is sensitive to both antigens should be expected and is borne out by table 3.

Table 4 reveals that 14 (17.9 per cent) of 78 children who did not react to either antigen had calcifications in their chests. This is entirely consistent with our previous study. A review of the roentgenograms of these 14 children showed that only 2 had massive conglomerate or multiple calcifications. The other 12 had calcifications which were borderline and could very well have been called negative. They showed small areas of increased density concerning which it was extremely difficult to be certain as to whether they were vessels, calcifications or small areas of other confluent densities. A few of these children might have given a positive reaction to 1 mg. of old tuberculin. Anergy or loss of sensitivity to either or to both antigens is probably not so uncommon but that it could explain these few exceptions. One must also consider the possibility that there are other infections in this area which may lead to pulmonary calcification.

## COMMENT

This study, in a manner strikingly similar to the one previously reported, shows a remarkable relationship between sensitivity to histoplasmin and the development of pulmonary calcification. The early development of sensitivity to histoplasmin followed by the development of the calcification at a rate much greater than the age specific rate of sensitivity to tuberculin suggests that most of the lesions are more likely to be related to the development of sensitivity to histoplasmin than to be associated with tuberculosis. It is extremely unlikely that these clinical manifestations are limited to the Tennessee area where they were observed; indeed, the studies of Palmer and Furcolow [10] suggest a broad geographic incidence, since they report similar conditions commonly present in various sections of the Mississippi valley and less frequently in most sections of the United States.

Present concepts of the primary complex or first infection tuberculosis in its relation to pulmonary calcification need reevaluation. The same may be true of tuberculosis due to reinfection. The significance of these studies in relation to thousands of veterans in whom pulmonary calcifications have developed while they were in the armed forces needs study. Present day concepts based on mass roentgenographic studies need to be redefined. The significance of the observations and their importance to the clinician, public health officer, roentgenologist and pathologist we believe to be obvious.

TABLE 3.—*Number and Percentage of Tennessee Children with Calcifications According to Their Reaction to Tuberculin and to Histoplasmin*

| Type of Reaction | | No. | Per Cent of Whole Group | With Calcifications | |
|---|---|---|---|---|---|
| | | | | No. | Per Cent of Reaction Group |
| Total | | 344 | .... | 183 | 53.2 |
| Tuberculin + | Histoplasmin + | 60 | 17.4 | 42 | 70.0 |
| Tuberculin + | Histoplasmin — | 14 | 4.1 | 7 | 50.0 |
| Tuberculin — | Histoplasmin + | 192 | 55.8 | 120 | 62.5 |
| Tuberculin — | Histoplasmin — | 78 | 22.6 | 14 | 17.9 |

10. Furcolow, Michael L., and Palmer, Carroll E.: The Geographic Distributions of Sensitivity to Histoplasmin, read before the Southern Medical Society at Cincinnati in November 1945.

The observations herein reported confirm in part those of Emmons and Olson [11] concerning the occurrence of cross sensitivity in animals infected with Haplosporangium parvum and Histoplasma capsulatum. His studies showed that sensitivity to haplosporangin was absent in animals infected with Histoplasma capsulatum, Blastomyces dermatitidis and Coccidioides immitis. Our studies show that individuals reacting to histoplasmin and possibly infected with this organism do not react to haplosporangin. This would also allow us to state that infection with Haplosporangium parvum plays no significant part in the development of nontuberculous pulmonary calcification in Tennessee.

TABLE 4.—*Histoplasmin and Tuberculin Reactions in 183 Children with Pulmonary Calcification*

| Pulmonary Calcification and | | Number with Calcification | Percentage of Whole Group |
|---|---|---|---|
| Histoplasmin + | Tuberculin + | 42 | 23.0 |
| Histoplasmin + | Tuberculin — | 120 | 65.6 |
| Subtotal histoplasmin +.... | | 162 | 88.6 |
| Tuberculin + | Histoplasmin + | 42 | 23.0 |
| Tuberculin + | Histoplasmin — | 7 | 3.8 |
| Subtotal tuberculin +..... | | 49 | 26.3 |
| Histoplasmin — | Tuberculin — | 14* | 7.6 |

* Any equivocal or doubtful calcification has been recorded as positive.

## CONCLUSIONS

1. A study of the roentgenograms of their chests and the cutaneous sensitivity to histoplasmin and to tuberculin of 344 Tennessee children and young adults indicates the existence of a relationship between sensitivity to histoplasmin and pulmonary calcification.

2. The absence of cutaneous sensitivity to haplosporangin in 344 subjects, 53 per cent of whom were found to have pulmonary calcifications, would seem to preclude the possibility that infection with Haplosporangium parvum has a significant bearing on the development of pulmonary calcifications in residents of Tennessee.

11. Emmons, C. W., and Olson, B. J.: Studies of the Role of Fungi in Pulmonary Diseases: I. Cross Reactions of Histoplasmin, Pub. Health Rep. **60**: 1383, 1945.

**The Roman Hospital System.**—The legend of the origin of the first hospital in Rome has often been told. Plague or some other pestilence having broken out in the city in 293 B. C., a mission was sent to seek help from Epidaurus. A sacred serpent was entrusted with the task of healing, and as the ship sailed up the Tiber the serpent swan ashore and landed on the island of St. Bartholomew. The plague was stayed, and on the island, which is shaped like a ship and bears a serpent and staff carved on the "prow" there was established the hospital from which, many years later (A. D. 1123), came Rahere the monk to found St. Bartholomew's Hospital in London. To the island hospital of Rome in the days of the republic men sent their sick slaves so as to avoid the trouble of caring for them at home. Thus it became a haven for the sick poor. Later, in the first and second centuries A. D., there is mentioned by various writers the existence of valetudinaria, which appear to have been private hospitals or "nursing homes." They may have developed eventually into public institutions. It was only to be expected that in the well organized Roman army there should be hospital accommodation for sick and wounded soldiers. These were established at various strategic points, and the sites of several of them have been excavated. One of the most perfect examples is at Novaesium, near Düsseldorf. It dates from about A. D. 100 and, constructed on the corridor system, is strangely modern.—Guthrie, Douglas: A History of Medicine, Philadelphia, J. B. Lippincott Company, 1946.

# AMPHETAMINE (BENZEDRINE) SULFATE FOR ACUTE BARBITURATE POISONING

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The treatment of coma resulting from barbiturate poisoning still taxes the therapeutic skill of the physician. Numerous drugs have been tried in the past with variable success. Among the more popular may be mentioned ephedrine, nikethamide, strychnine and brucine. Picrotoxin has received extensive trial in the past few years [1] with many favorable results yet leaves something to be desired in the treatment of the deeply comatose patient. In our experience, when the quantity of barbiturate ingested has been large, particularly when the more rapidly acting derivatives are used, the amount of picrotoxin required to counteract it is so great that convulsions appear, necessitating the intravenous injection of barbiturates to control them. The present status of therapy with picrotoxin can best be summed up in the report of the Council on Pharmacy and Chemistry: [2] "The details of events in the course of animal experiments show that it is necessary to poison the animal with picrotoxin in order to elicit the antagonism. What results when the two drugs are given together is not a direct reversal of the depressed state but a combined form of poisoning by picrotoxin and the barbiturate with a mixture of depression and stimulation, from which within a given range of doses the animal ultimately recovers."

Amphetamine (benzedrine) sulfate as a drug useful in counteracting poisoning by the barbiturates was first suggested by Myerson.[3] In numerous carefully controlled studies, he and his associates demonstrated the reciprocal pharmacologic effects of amphetamine sulfate and the barbiturates.[4] Reifenstein and Davidoff [5] have demonstrated that the depth and duration of narcosis with soluble amytal were affected by the drug, as in every case the narcosis was completely counteracted by the injection of 20 or 30 mg. of amphetamine sulfate intravenously, and in 5 instances by only 10 mg.

The typical case of poisoning by barbiturates presents a picture of extreme depression of the central nervous system with coma, shallow respiration and low blood pressure falling rapidly to shock levels.[6] The effect of the administration of amphetamine is twofold: sympathomimetic and wakeful-psychologic.[3] The sympathomimetic action is demonstrated by a rise in blood pressure, an increase in the rate and depth of the respiration and an increase in the pulse rate. In its wakeful-psychologic effects amphetamine specifically counteracts the soporific action of the barbiturates. Pharmacologically it would seem that amphetamine is a suitable antidote in barbiturate intoxication.

An attempt to evaluate its effectiveness was made by us on patients admitted routinely to Meadowbrook Hospital (Nassau County, N. Y.) in coma from an overdosage of barbiturates taken with suicidal intent. The patients were treated as admitted, no effort at selection being made. To date we have treated 14 patients. The diagnosis of barbiturate poisoning was made by physical examination and from history supplied by relatives and confirmed by demonstration of the drug in the urine and in the gastric contents when lavage was performed.

## METHOD OF STUDY

As soon as the patient was admitted treatment with intravenous injections of amphetamine sulfate was instituted.[7] We used a preparation containing 10 mg. of amphetamine sulfate in 1 cc. of isotonic solution of sodium chloride. A complete examination was made of the pupillary reflexes, deep tendon reflexes, pulse rate, respiratory rate and blood pressure before the injection, and then the contents of one ampule (10 mg.) were injected intravenously without dilution. (Later we found we could use larger doses with safety and started treatment in some instances with injections of 40 mg. of the undiluted drug and continued with 20 mg. doses injected every thirty minutes.) Observations of the blood pressure and pulse rate were made just before and after each injection. An immediate rise in blood pressure with an increase in the rate and fulness of the pulse were obtained in all cases. The pupils became dilated as a result of the sympathomimetic action and remained so during the course of the treatment. Supportive treatment in the form of fluids given intravenously was used in some cases when dehydration was present. Except in case 11, in which the supply of amphetamine sulfate was exhausted, no other drug was employed.

## REPORT OF CASES

CASE 1.—V. B., a white woman aged 23, was admitted about ten hours after having taken thirty capsules (22½ grains, or 1.46 Gm.) of pentobarbital sodium. On admission the patient was comatose, with face flushed, lips dry and somewhat cyanotic and reflexes diminished to absent. The blood pressure was 90/65, the pulse rate 80, the respiratory rate 12 and the temperature 98 F.

The patient received four doses of 10 mg. of amphetamine sulfate intravenously over a period of five hours. After receiving a total of 40 mg. she reacted to the spoken voice with a return of reflexes. He recovery was uneventful.

CASE 2.—H. V., a white woman aged 43, had taken ten capsules (15 grains, or 1 Gm.) of seconal four hours before admission. On admission the patient was comatose, breathing stertorously, with pupils dilated and face flushed. The blood pressure was 130/80, the pulse rate 150, the respiratory rate 15 and the temperature 97 F. Reflexes were absent.

The patient received 20 mg. of amphetamine sulfate intravenously every half hour. After receiving a total of 90 mg. the patient had reacted to the drug sufficiently to converse with her

From the medical service (Dr. E. C. Jessup, chief) of Meadowbrook Hospital, Nassau County, N. Y.

1. Dorsey, J. F.: The Picrotoxin Treatment of Barbiturate Poisoning, J. Nerv. & Ment. Dis. **99**: 367 (April) 1944. Anderson, J. P.: The Treatment of Barbiturate Intoxication, with Special Reference to Picrotoxin: A Report of Twenty Cases, Ann. Int. Med. **14**: 2037 (May) 1941. France, C. J.; Barnett, M., and Yonkman, F. F.: Recovery from Eight Grains of Barbiturates in Attempted Suicide, J. A. M. A. **122**: 173 (May 15) 1943. Bleckwenn, W. J., and Masten, M. G.: The Antidotal Treatment of Barbiturate Intoxication: Report of Treatment with Picrotoxin in Six Cases, ibid. **111**: 504 (Aug. 6) 1938. Kohn, R.; Platt, S. S., and Yaltman, S. Y.: The Picrotoxin-Barbiturate Antagonism, ibid. **111**: 387 (July 30) 1938.

2. Present Status of Picrotoxin in Poisoning by the Barbiturates, report of the Council on Pharmacy and Chemistry, J. A. M. A. **112**: 431 (Feb. 4) 1939.

3. Myerson, Abraham: The Rationale of Amphetamine (Benzedrine) Sulfate Therapy, Am. J. M. Sc. **199**: 729 (May) 1940.

4. Myerson, Abraham: The Reciprocal Pharmacologic Effects of Amphetamine (Benzedrine) Sulfate and the Barbiturates, New England J. Med. **221**: 561 (Oct. 12) 1939. Myerson, A.; Loman, J.; Rinkel, M., and Lesses, M. F.: The Effect of Amphetamine (Benzedrine) Sulfate and Paredrine Hydrobromide on Sodium Amytal Narcosis, ibid. **221**: 1015 (Dec. 28) 1939. Myerson, A., and Loman, J.: Intravenous Drip Administration of Autonomic Drugs, ibid. **224**: 412 (March 6) 1941.

5. Reifenstein, E. C., Jr., and Davidoff, E.: Intravenous Benzedrine Sulfate as an Antagonist to Intravenous Soluble Amytal, Proc. Soc. Exper. Biol. & Med. **38**: 181 (Feb.) 1938.

6. Goodman, L., and Gilman, A.: The Pharmacological Basis of Therapeutics, New York, Macmillan Company, 1941, pp. 140-142.

7. Amphetamine (benzedrine) sulfate supplied by Smith, Kline & French Laboratories, Philadelphia.

husband. All reflexes had become present. The patient reacted after three hours and her recovery was uneventful.

CASE 3.—V. B., a white woman aged 26, was admitted about four hours after having taken ten capsules (15 grains) of pentobarbital sodium. The patient was comatose on admission, the pupils were contracted and did not respond to light. The reflexes were completely absent, and the extremities were cold. The blood pressure was 120/100, the pulse rate 68, the respiratory rate 24 and the temperature 99 F.

The patient received four doses of 20 mg. of amphetamine sulfate intravenously over a period of one and a half hours. After receiving a total dosage of 80 mg. the patient was reactive, responding rationally to questions. Her recovery was uneventful.

CASE 4.—V. B., the person who on her first admission as patient 1 was treated for barbiturate poisoning, about twelve hours before her second admission had taken thirty capsules (22½ grains) of pentobarbital sodium. She was comatose, with face flushed, pupils dilated, reflexes absent and extremities cold. The blood pressure was 84/65, pulse rate 80, the respiratory rate 16 and the temperature 97.4 F. Her general condition was worse than on the previous admission.

The patient received a total of 320 mg. of amphetamine sulfate intravenously over a period of seven and a half hours. At the end of this time she was responsive. Her recovery was uneventful.

CASE 5.—A. M., a white man aged 38, was admitted to the hospital in a deep coma. The pupils were constricted and did not respond to light. All the deep reflexes were diminished. It was stated that he had taken twenty capsules of amytal (3 grains, or 0.2 Gm. each?). The temperature was 97 F., the pulse rate 68 and the respiratory rate 15.

The patient received a total of 150 mg. of amphetamine sulfate intravenously over a period of eight hours, and, except for a slight headache, his recovery was uneventful.

CASE 6.—E. W., a white woman aged 40, was stated to have taken 12 grains (0.78 Gm.) of pentobarbital sodium about two hours before admission. She was comatose. The pupils were constricted and did not react to light. The deep reflexes were diminished. The temperature was 98 F., the pulse rate 90, the respiratory rate 20 and the blood pressure 90/70.

The patient was given one intravenous injection of 40 mg. of amphetamine sulfate, and one-half hour later she was awake and responding to questions.

CASE 7.—L. M., a white woman aged 45, was stated to have taken 12 grains (0.78 Gm.) of pentobarbital sodium. (How long a time before admission the drug had been taken was not known.) She also had a history of acute alcoholism. On admission she was semicomatose. The deep reflexes were diminished, but the pupils reacted to light. The temperature was 100.2 F., the pulse rate 89, the respiratory rate 20 and the blood pressure 128/78.

She was given one intravenous injection of 20 mg. of amphetamine sulfate, and one-half hour later she had responded sufficiently to speak, although her speech was somewhat slurred. Her recovery was uneventful.

CASE 8.—V. G., a white man aged 41, was said to have taken ten tablets of a barbiturate of unknown strength. On admission he was comatose. The pupils were slightly dilated but reacted to light. The temperature was 100 F., the pulse rate 110, the respiratory rate 28 and the blood pressure 96/68.

The patient received a total of 40 mg. of amphetamine sulfate intravenously over a period of three hours. One-half hour after the last injection he responded. His recovery was uneventful.

CASE 9.—M. C., a white woman aged 39, was said to have taken seconal sodium 23 grains (1.5 Gm.), phenobarbital 20 grains (1.3 Gm.) and bromides 10 grains (0.65 Gm.) about eight hours before admission. On admission she was comatose. The pupils reacted to light, and the deep reflexes were diminished. She did not respond to painful stimuli. The temperature was 98.6 F., the pulse rate 20, the respiratory rate 30, and the blood pressure 110/70.

She received a total of 400 mg. of amphetamine sulfate injected intravenously over a period of eight hours. At the end of this period she was conscious and complained only of slight drowsiness. Her recovery was uneventful.

CASE 10.—E. T., a white woman aged 41, was said to have taken fifty tablets, ½ grain (0.03 Gm.) each, of phenobarbital. On admission she was semicomatose. The pupils reacted to light. All deep reflexes were moderately diminished. The patient reacted to painful stimuli. The temperature was 99 F., the pulse rate 90, the respiratory rate 10 and the blood pressure 80/?.

She received a total of 100 mg. of amphetamine sulfate intravenously over a period of about six hours. At the end of this time she responded. Her recovery was uneventful.

CASE 11.—J. C., a white man aged 45, was admitted in coma and with depressed respiration. The deep tendon reflexes were absent. The temperature was 101 F., the pulse rate 95 and the respiratory rate 24.

The patient was said to have taken twenty capsules of sodium amytal (3 grains, or 0.2 Gm., each), a total of 60 grains (4 Gm.). Treatment was started with the injection of 20 mg. of amphetamine sulfate intravenously every half hour. After 360 mg. had been used the supply of the drug was exhausted, and no more could be obtained. Treatment was continued with the administration of caffeine and sodium benzoate and ephedrine.

On the day after admission the patient's temperature rose to 105.4 F., and the pulse rate to 132. Signs of consolidation at the base of the right lung were present. Sulfadiazine and penicillin were administered, but the patient died on the second day after admission.

An autopsy revealed an early pneumonia in the lower lobe of the right lung in the stage of red hepatization.

Chemical analysis of the liver and urine revealed the presence of barbiturates in large amount.

CASE 12.—E. C., a white woman aged 30, was admitted with a history of having taken nine or ten capsules of pentobarbital sodium and a quantity of whisky on the night before admission. Therapy was instituted about eighteen hours after the drug had been ingested. After 200 mg. of amphetamine sulfate had been injected intravenously the patient was opening her eyes and trying to sit up in bed. Her recovery was uneventful.

CASE 13.—L. C., a white woman aged 54, was admitted with a history of having taken fourteen capsules of seconal (1½ grains, or 0.1 Gm., each). When the ambulance surgeon had seen her at home the respirations had been depressed to 4 per minute, and artificial respiration was administered. On admission to the hospital the pupils were small and did not react to light. There was no corneal reflex. The deep tendon reflexes were all absent except for a slight response in the left knee. The blood pressure was 70/60.

After receiving 210 mg. of amphetamine sulfate intravenously, the patient began to react to painful stimuli. The pupils reacted to light, and the deep reflexes had returned. Her recovery was uneventful.

CASE 14.—V. G., a white woman aged 36, was admitted with a history of having taken forty to fifty tablets of evipal sodium about one hour previously. She had been given 1 cc. of picrotoxin (strength?) by her attending physician prior to admission. She was deeply comatose. The blood pressure was 122/80, the pulse rate 112 and the respiratory rate 28.

Treatment was instituted with 30 mg. of amphetamine sulfate injected intravenously and was continued with 20 mg. every half hour. After receiving 190 mg. of the drug she began to react to painful stimuli and tried to speak.

On the day after admission the temperature rose to 102.4 F. and there were signs of pneumonia at the lower lobe of the right lung. With the administration of penicillin and of sulfonamides the pneumonia cleared, the temperature became normal and recovery was uneventful.

## COMMENT

The need for active and persistent treatment of barbiturate poisoning cannot be stressed too strongly. A false sense of security is felt on observing the state of coma resulting from an overdosage of barbiturates

Unless cyanosis, Cheyne-Stokes respiration or an elevation of temperature has supervened, the impression is obtained that the patient is merely in a deep sleep and will awaken after the effects of the drug have worn off. Valuable time may be lost before instituting therapy. If active treatment is not undertaken rapidly, death will occur from respiratory depression, usually a terminal bronchopneumonia or pulmonary atelectasis.

Picrotoxin has received wide use in barbiturate intoxication. It is a powerful stimulant of the central nervous system and for the most part is an effective drug in the depressed state of barbiturate poisoning. However, its action on the cerebral cortex is less than that on the midbrain, the medulla and the spinal cord. This leads to the result commonly observed in its use in barbiturate poisoning: the patient is in a state of convulsions and is still deeply in coma. The dangers inherent in the use of this powerful convulsant led us to evaluate the therapeutic properties of amphetamine sulfate.

The reciprocal pharmacologic action of amphetamine sulfate and the barbiturates allows for the use of much larger doses of amphetamine than one could administer to a person under normal physiologic conditions. One of our patients required as much as 400 mg. of amphetamine intravenously. No unusual toxic effects were noted. The hyperthyroidism of 1 patient did not become adversely affected by the use of the drug.

The evaluation of any drug in barbiturate intoxication is very difficult, the individual response to different doses is so variable. No doubt some of the patients, if undisturbed, might have had a long sleep and awakened none the worse for their experience. However, the need for active treatment to prevent pulmonary stasis, congestion, pneumonia and atelectasis is always present. The shallow respiration of the person in deep sleep makes him a potential candidate for these pulmonary complications, and shortening the period of sleep, even though it may not be essential to preserve life, is desirable.

Results of treatment with picrotoxin for patients having taken as little as 10 grains (0.65 Gm.) of a barbiturate have been reported. Some of these patients would have recovered, no doubt, without any treatment with the drug.

In a series [8] of 24 cases of barbiturate poisoning in which treatment with picrotoxin was given, five fatalities occurred. In the present group of 14 cases of treatment with amphetamine sulfate injected intravenously the death of only 1 patient resulted.

### SUMMARY AND CONCLUSIONS

Fourteen patients poisoned with barbiturates were treated with amphetamine sulfate injected intravenously. Thirteen patients recovered without any observable ill effects except for some headache. The patient who died had not received, in our estimation, a sufficient quantity of amphetamine sulfate because no more of the drug was available.

Experience with this small series of cases of poisoning with barbiturates is favorable enough to warrant further use of amphetamine sulfate for this type of therapy.

8. Reifenstein, E. C., Jr.; Reifenstein, E. C., Sr.; Mignault, J. W., and Raffaele, A. J.: Picrotoxin in the Treatment of Acute Barbiturate Poisoning: A Review of the Literature with Report of 2 Cases, Ann. Int. Med. **13**: 1013 (Dec.) 1939.

# Clinical Notes, Suggestions and New Instruments

## MENINGITIS DUE TO ESCHERICHIA COLI TREATED WITH STREPTOMYCIN

LIEUTENANT COLONEL ALEXANDER J. ALEXANDER
M. C., A. U. S. (Inactive Status)
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Meningitis due to Escherichia coli is fortunately not common. It is most frequently found in newborn infants. Occasionally it is secondary to bacteremia or to wounds penetrating the meninges, especially when there is fecal contamination. Strong and Edwards [1] reported a case of meningitis due to E. coli following a wound in which a bullet had lodged in the sacrum, penetrating the spinal canal. Recovery followed the removal of the foreign body with drainage of a previously undiscovered subdural abscess and therapy with large doses of sulfadiazine. Such fortunate results are not common, and in most cases the sulfonamides have little or no effect on organisms of the colon-typhoid group. Until recently the prognosis in meningitis due to E. coli has been extremely poor, and the mortality rate exceedingly high, owing largely to the lack of an effective chemotherapeutic or antibiotic agent. The recent development of new antibiotics, particularly streptomycin, has raised the first ray of hope in the treatment of this condition. Streptomycin is known to have a definite effect on E. coli and on other gram-negative organisms in vitro.[2] There is evidence in unpublished reports from several sources that streptomycin is effective in vivo against many of these organisms. No references, either in the medical literature or in unpublished reports, were found on the use of streptomycin in the treatment of meningitis due to E. coli. As streptomycin is a new therapeutic agent for which dosages have not been fully established, and since the types of infection which respond to it have not yet been completely determined, this case is thought to be sufficiently interesting and instructive to be reported:

TABLE 1.—*Examination of the Spinal Fluid*

| Date | Cell Count | Polymorphonuclears | Lymphocytes | Sugar | Total Protein |
|---|---|---|---|---|---|
| October 14 | 507 | 70 | 30 | 0 | 124 |
| October 15 | 900 | 45 | 55 | 45 | 61 |
| October 16 | 204 | 49 | 51 | 55 | 55 |
| October 17 | 142 | 58 | 42 | 37 | 76 |
| October 18 | 229 | 25 | 75 | 35 | 61 |
| October 19 | 144 | 29 | 71 | 37 | 64 |
| October 20 | 108 | 6 | 94 | 47 | 55 |
| October 21 | 110 | 7 | 93 | 53 | 70 |
| October 22 | 88 | 5 | 95 | 51 | 57 |
| October 23 | 105 | 3 | 97 | 51 | 47 |
| October 24 | 72 | 6 | 94 | 55 | 43 |
| October 25 | 216 | 10 | 90 | 42 | 51 |
| October 26 | 203 | 10 | 90 | 56 | 53 |
| October 28 | 189 | 10 | 90 | 55 | 40 |
| October 31 | 69 | 16 | 84 | 53 | 28 |
| November 5 | 35 | 0 | 100 | 45 | 24 |

### REPORT OF CASE

*History.*—C. L., a private aged 19, was wounded in action in France, Jan. 12, 1945, sustaining extensive injuries including compound comminuted fractures of both tibias, partial amputation of the left foot and fracture of the laminas of the twelfth dorsal vertebra. He received supportive measures and emergency surgical treatment, including débridement. A note at the time of débridement stated that the spinal cord and covering were intact. A few days after injury a urinary fistula developed. This closed spontaneously shortly thereafter. Subsequent urologic examinations disclosed no abnormality. Saucerization of

From McCloskey General Hospital, Temple, Texas.

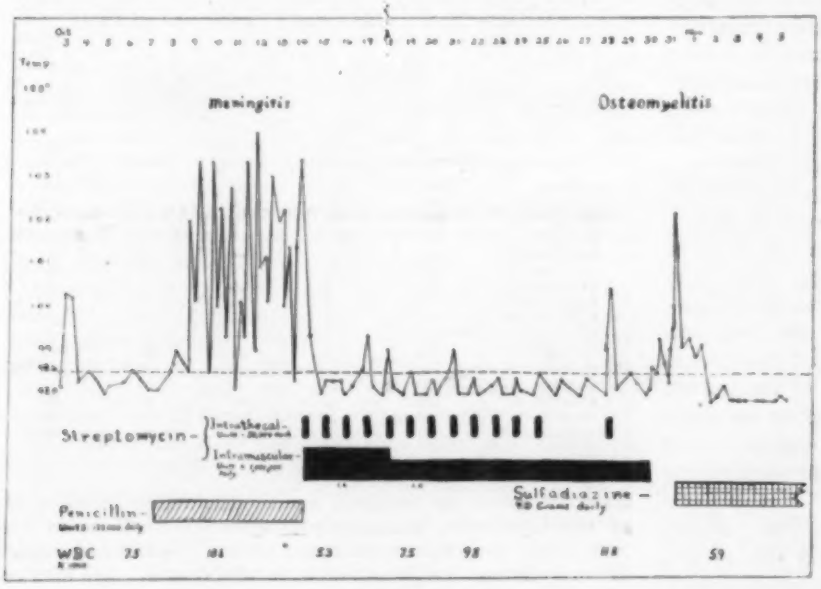
1. Strong, P. S., and Edwards, J. E.: Escherichia Coli Meningitis Treated with Sulfadiazine, J. A. M. A. **129**: 210 (Sept. 15) 1945.

2. Helmholz, H. E.: The Effect of Streptomycin on Bacteria Commonly Found in Urinary Infections, Proc. Staff Meet., Mayo Clin. **20**: 357 (Oct. 3) 1945.

the upper end of the right tibia was performed on April 20 because of osteomyelitis. A sinus over the involved portion of the right tibia continued to drain intermittently. The course was otherwise uneventful.

On October 7, in preparation for reamputation of the left foot, the patient was started on penicillin 15,000 units intramuscularly every three hours. On October 8, under spinal anesthesia (procaine 150 mg.), reamputation of the left foot was performed and a small piece of shrapnel removed from under the skin of the right side of the back. The following day the temperature rose to 102 F. and the patient complained of severe headache. For the next five days the temperature was septic in type. Persistent vomiting developed. The patient noticed that his neck was sore, but there was no stiffness. Headache became more severe. Nothing was found in the abdomen or wounds to account for the fever. Examinations by the medical and neurologic consultants failed to reveal any significant findings until October 14, when there was slight stiffness of the neck and slight blurring of the optic disk margins. Lumbar puncture revealed opalescent fluid, pressure 160 mm. of water, dynamics normal. Penicillin 10,000 units was injected intrathecally, pending spinal fluid studies.

*Physical Examination.*—The patient was tall and thin, weighing about 120 pounds (54 Kg.). He was obviously critically ill. He was emotionally upset, complained of a severe headache and did not wish to be disturbed. There was a draining sinus over the lateral aspect of the upper end of the right tibia. Examination of the other wounds and scars showed no evidence of infection. There was no redness, swelling or tenderness over the twelfth dorsal vertebra or the scar just to the left of it. There was definite nuchal rigidity. Kernig's sign could not be tested because of splints and bandages on the legs. The deep tendon reflexes were slightly hyperactive and equal. There were no pathologic reflexes. The optic disks showed slight haziness of the margins without choking. The remainder of the physical examination was negative.




Clinical course.

*Laboratory Examination*—The white blood cell count ranged between 5,300 and 11,800.

Urinalyses on October 10 and 11 showed many pus cells with clumps, but examinations thereafter were negative.

Smears of pus from the sinus over the right tibia showed gram-positive cocci and gram-negative bacilli. Cultures were overgrown by Proteus vulgaris.

Blood culture on October 14 was sterile but on October 15 yielded a growth of E. coli. Blood cultures thereafter were sterile.

The spinal fluid cell counts and chemical findings are recorded in the accompanying table. Smear of the spinal fluid on October 14 showed large gram-negative rods, with an apparent capsule, morphologically resembling Klebsiella pneumoniae. Daily smears of spinal fluid thereafter, through October 26 and on October 28 and 31 and November 5, showed no organisms. On spinal fluid cultures done October 14 and 17 E. coli was recovered. All other cultures showed no growth.

The organisms on culture were smaller than those seen on the direct smear. They were coliform in size and shape, were motile and gave the typical sugar reactions and indole production of E. coli. It was felt that the morphologic characteristics of the organism, as seen on the original smear, had been altered by penicillin therapy. Growth of the organism obtained from spinal fluid on October 14 was suppressed by 4 S units of streptomycin per cubic centimeter. There was no change in streptomycin sensitivity of the organism obtained on spinal fluid culture October 17. Unfortunately, laboratory facilities were not available for determination of the streptomycin concentration in spinal fluid, blood or urine.

*Treatment and Course.*—The patient was given 50,000 S units of streptomycin intrathecally and was started on streptomycin 200,000 S units intramuscularly every three hours. Penicillin, which had been given since October 7, was discontinued. An initial temperature rise to 103.8 F. was followed within sixteen hours by a fall to normal level, which was maintained thereafter except for a slight secondary rise to be described. The patient's clinical improvement was no less dramatic than the rapid disappearance of his septic temperature. Vomiting ceased, headache disappeared and his emotional outlook was greatly improved. The nuchal rigidity definitely diminished. On the third day the laboratory reported that the organism in the spinal fluid was E. coli, not K. pneumoniae, as had been suspected. In view of the good response to streptomycin and the known effect of this drug on infections due to E. coli, it was felt that no change in therapy should be instituted. Although E. coli was recovered from blood culture on the second day and from the spinal fluid again on the fourth day, the patient's clinical condition steadily improved. Stiffness of the neck gradually disappeared after about five days. The intramuscular dose of streptomycin was reduced to 125,000 S units on the fifth day. Daily intrathecal injections were continued through the twelfth day. On the fifteenth day the temperature rose to 100.4 F., and it was feared there might be a recurrence of the meningeal infection. However, lumbar puncture revealed clear fluid with essentially the same findings as two days previously. At this time the sinus over the right tibia had ceased draining and there were increased redness and swelling around the sinus tract. Within a few hours this opened again, draining profusely, and the temperature returned to normal. Intramuscular streptomycin was discontinued after the seventeenth day. That evening the temperature rose to 99.2 and the next day to 102 F. The skin around the sinus tract over the right tibia was again red and tender. It was believed that the temperature elevation was due entirely to the osteomyelitis. The patient was therefore started on sulfadiazine. Saucerization of the upper end of the right tibia was subsequently performed on November 24. There has been no recurrence of symptoms suggesting meningitis.

## COMMENT

Streptomycin was successfully used in the treatment of a patient critically ill with meningitis due to Escherichia coli. The source of infection was probably a bacteremia secondary to a mixed type of osteomyelitis of the right tibia, since E. coli was found on blood culture. Urinary tract infection, present during the onset of fever, was not felt to be the source, since pyuria had completely cleared before the onset of bacteremia and meningeal symptoms. The intramuscular dosage of streptomycin was 1,600,000 S units daily for four days, then 1,000,000 S units daily for an additional twelve days. The intrathecal dose was 50,000 S units daily for twelve days, with one addi-

tional dose on the fifteenth day of treatment. The total dosage of streptomycin was 18,275,000 S units intramuscularly and 650,000 S units intrathecally. The dosage used was empirical, and, in retrospect, larger intrathecal doses were probably indicated. Although there was a rapid fall in the patient's temperature curve and a dramatic improvement in his general condition, laboratory tests showed that the blood stream and spinal fluid infection did not respond as rapidly as the patient's clinical condition seemed to indicate. The persistent finding of approximately 200 cells in the spinal fluid during the period of intrathecal therapy, and the abrupt diminution of pleocytosis after intraspinal administration was discontinued, suggest that the persistently increased cell count was due at least in part to intrathecal therapy. No other ill effects or complications due to therapy were noted. There was no apparent improvement in the osteomyelitis, although as a mixed infection this was difficult to appraise. The rapid clinical improvement, and the ultimate recovery from a previously devastating type of infection, make this case worthy of note. The recognized effect of streptomycin on E. coli and the excellent results obtained in this case make the further use of streptomycin in E. coli meningitis warranted.

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## Council on Pharmacy and Chemistry

### NEW AND NONOFFICIAL REMEDIES

*The following additional articles have been accepted as conforming to the rules of the Council on Pharmacy and Chemistry of the American Medical Association for admission to New and Nonofficial Remedies. A copy of the rules on which the Council bases its action will be sent on application.*

AUSTIN SMITH, M.D., *Secretary.*

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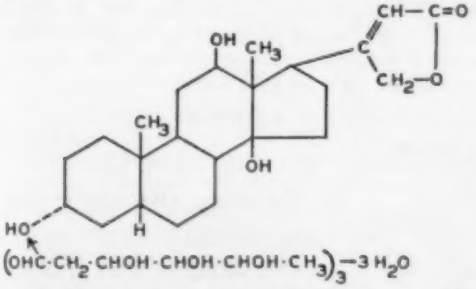
**DIGOXIN.** — $C_{41}H_{64}O_{14}$ (M. W. 780.92). — A crystalline glycoside which may be prepared from the leaves of Digitalis lanata or Digitalis orientalis. The crude digilanids from the leaves are separated by physical methods into digilanids A, B and C. Digoxin is formed from digilanid C by hydrolytic removal of acetyl and glucose groups. It is standardized by chemical and physical methods and prescribed in terms of weight. The structural formula of digoxin may be represented as follows:




*Actions and Uses.*—The actions and uses are closely similar to those of digitalis-U. S. P. As a purified substance it is claimed to have particular usefulness when rapid digitalization is necessary, usually within a few hours when administered by mouth and within a few minutes when given intravenously.

*Dosage.*—Before administering the usual dose of digoxin, it must be ascertained that no drug of the digitalis group has been given within two weeks.

For rapid digitalization by the oral route, an initial dose of approximately 0.75 to 1.5 mg. may be administered, followed by doses of 0.25 to 0.75 mg. at six hour intervals until the ventricular rate lies between 60 and 70, or the maximum therapeutic effect is obtained, or toxic symptoms appear. Patients who have received digitalis therapy during the preceding two weeks are given 1 mg. or less as an initial dose.

Very rapid digitalization may be accomplished with an intravenous injection of 0.75 to 1.0 mg. Ventricular slowing usually begins within a few minutes and is maximal in one to two hours. If complete digitalization is not obtained after six hours, additional doses of 0.25 to 0.5 mg. of digoxin may be given intravenously at six hour intervals.

For maintenance 0.25 to 0.75 mg. may be given daily by mouth, or 0.25 to 0.5 mg. may be given intravenously.

Digoxin injection is a tissue irritant and the contents of the ampul should be diluted with 10 cc. of sterile isotonic solution. The product should be injected slowly (five to ten minutes) and care taken to avoid extravenous injection.

*Tests and Standards.*—

Digoxin occurs as a white, odorless, crystalline powder, possessing a bitter taste (*care!*). When recrystallized from aqueous ethanol, it appears in the form of characteristic clusters of thin crystals. Digoxin is soluble in alcohol and pyridine but is practically insoluble in chloroform, ether and water. It melts with decomposition at from 255 to 265 C. when placed in a bath previously heated to 250 C.

Dissolve 1 mg. of digoxin in 2 cc. of glacial acetic acid containing 0.01 per cent of ferric chloride and add 1 cc. of sulfuric acid to form a subjacent layer: a pure brown ring, free from red color, is formed at the junction of the liquids. In a short time the acetic acid layer acquires an indigo-blue color (Keller-Kiliani test for presence of digitoxose).

Reflux 0.1 Gm. of dry digoxin with 10 cc. of alcohol, 10 cc. of water, 0.08 cc. of hydrochloric acid (specific gravity 1.16) for one-half hour. Neutralize the solution to litmus paper with 1 normal sodium hydroxide and evaporate to 2 cc., in vacuum; filter, dry the digoxigenin obtained at 80 C., and weigh (yield 45-46 per cent). When recrystallized from alcohol-water, the melting point of the product is 210-213 C. Dilute the filtrate from the hydrolysis to 25 cc., add 0.04 cc. of hydrochloric acid (specific gravity 1.16) and heat on a steam bath for twenty minutes. Neutralize the solution to litmus paper with sodium hydroxide solution and evaporate to a thick syrup in vacuum.

Dry the syrup in vacuum over sulfuric acid and extract the residue three times with anhydrous acetone. Evaporate the acetone and dry the residue in vacuum at 80 C. If crystals are not formed, allow the syrupy residue to stand in an ice chamber until crystals separate: the isolated crystals of digitoxose melt at 109-112 C.

Dry 0.1 Gm. of digoxin in vacuum over phosphorus pentoxide for four hours: the loss in weight is not more than 0.5 per cent.

The crystallographic and optical properties of digoxin may be summarized as follows: The crystals belong to the triclinic system; their crystalline habit is platy to tabular with rhombic outline, characteristically appearing with one acute angle or corner truncated. The crystals are biaxial, positive, with moderate optic angle. The refractive indexes are $\alpha = 1.522$, $\beta = 1.550$ and $\gamma = 1.610$. Birefringence is positive $(\gamma - \alpha) = 0.088$. Dispersion, $r > v$, weak.

BURROUGHS WELLCOME & CO., INC., NEW YORK

**Tabloid Digoxin:** 0.25 mg.

**Solution of Digoxin, 0.05 per cent W/V:** 30 cc. bottle. Each cubic centimeter contains 0.5 mg of digoxin in 70 per cent alcohol solution.

**Hypoloid Digoxin Injection, 0.05 per cent W/V:** 1 cc. Contains 0.5 mg. of digoxin per cubic centimeter in 70 per cent alcohol solution.

**THEOPHYLLINE ETHYLENEDIAMINE** (See New and Nonofficial Remedies, 1945, p. 388).

The following dosage forms have been accepted:

BARRY BIOLOGICAL LABORATORY, DIVISION OF BARRY ALLERGY LABORATORIES, INC., DETROIT

**Solution Aminophylline:** 0.50 Gm. in 2 cc. and 20 cc. ampuls and 0.25 Gm. in 10 cc. ampuls.

G. D. SEARLE & COMPANY, CHICAGO

**Aminophylline Supposicones:** 0.50 Gm. Each suppository contains aminophylline, 0.50 Gm., incorporated into a suppository base consisting of a polyethyleneglycol of high molecular weight (Carbowax 4,000 W) and propyleneglycol stearate (Emcol PS-50).

WYETH INCORPORATED, PHILADELPHIA

**Suppositories Aminophylline:** 0.5 Gm.

**PRIVINE HYDROCHLORIDE** (See THE JOURNAL, June 8, 1946, p. 522).

The following additional dosage form has been accepted:

CIBA PHARMACEUTICAL PRODUCTS, INC., SUMMIT, N. J.

**Privine Hydrochloride Nasal Jelly, 0.05%:** 20 Gm. tubes. Each 1 Gm. contains naphazoline hydrochloride 0.5 mg. in a buffered water soluble base containing glycerin, tragacanth and aromatics with merthiolate 0.01 mg. as a preservative.

**PENICILLIN** (See New and Nonofficial Remedies, 1945, p. 214).

The following dosage forms have been accepted:

ABBOTT LABORATORIES, NORTH CHICAGO, ILL.

**Penicillin Calcium:** 100,000 and 200,000 Oxford unit vials.

BRISTOL LABORATORIES, INC., NEW YORK

**Penicillin Calcium:** 20 cc. vials. 100,000 and 200,000 Oxford units.

**ASCORBIC ACID** (See New and Nonofficial Remedies, 1945, p. 622).

The following dosage form has been accepted:

ENDO PRODUCTS, INC., RICHMOND HILL, N. Y.

**Tablets Ascorbic Acid:** 10 mg., 25 mg., 50 mg. and 100 mg.

# COUNCIL ON FOODS AND NUTRITION

## VITAMIN DEFICIENCIES: STIGMAS, SYMPTOMS AND THERAPY

*The accompanying syllabus is a consensus of current views. Lack of complete information due to continued rapid development of the subject renders certain statements tentative and subject to probable early revision. In presenting this syllabus the Council directs that emphasis be placed on the view that vitamins must never be relied on as a substitute for the regular consumption of an adequate diet.*

JAMES R. WILSON, M.D., *Secretary.*

The stigmas and symptoms associated with deficiency of vitamin A, thiamine, riboflavin, niacin, ascorbic acid, vitamin D and vitamin K are listed in this syllabus together with a statement concerning treatment of each deficiency. Deficiencies of several vitamins, notably biotin, pyridoxine, pantothenic acid and vitamin E, are not accompanied by stigmas which can be recognized at present.[1] The subject is in a stage of fluidity and development which probably will necessitate early revision or amplification. Particularly is this true of the diagnosis and treatment of deficiency of folic acid. This vitamin has been prepared in isolated form so recently that its consideration here is omitted. Not many of the stigmas listed are diagnostic of a vitamin deficiency in themselves, but the occurrence of several of these stigmas in association is at least presumptive evidence of some nutritional failure. Vitamin deficiencies commonly encountered in clinical practice are multiple. Scrutiny of the dietary history is indicated in cases in which several of the stigmas listed are present. Due attention should be paid to the well known fact that stresses such as pregnancy, exposure or disease may occasion the development of deficiency states when the diet otherwise might be considered adequate.

Treatment for a deficiency involves administration orally or, if need be, parenterally of large enough doses of the vitamin to be of therapeutic value and continuation of this treatment for long enough periods to assure a satisfactory therapeutic trial. However, since the diagnosis is necessarily presumptive in many instances, exclusive dependence on specific therapy is justified only infrequently, and basic to good treatment in all cases is a diet planned to be adequate nutritionally and assurance that the diet is eaten.[2] The diet is important for the education of the patient and as a means of dispensing factors heretofore not isolated which will be contained in the foods of such a diet. Likewise helpful in treatment because of its content of factors not as yet identified is some good source of the vitamin B complex as a whole. Products such as brewers' yeast or an extract of such yeast, wheat germ, extracts of cereal grasses or of rice bran, crude extract of liver or desiccated liver represent such sources. For a patient who cannot take foods or drugs orally or in whom absorption is poor, crude liver extract may be given intramuscularly or even on occasion it may be diluted with sterile isotonic solution of sodium chloride or dextrose and administered by vein.

### Stigmas suggesting deficiency of vitamin A

*Xerosis of the conjunctiva:*
Thickening with loss of transparency, so that only the more superficial vessels of the bulbar conjunctiva are clearly seen, associated with more or less yellow pigmentation, especially along the horizontal meridian of the eyeball; infrequently associated with small foamlike plaques called Bitot's spots.

*Papular eruptions of pilosebaceous follicles:*
A grater-like feel, which in early stages resembles gooseflesh but, when more fully developed, presents the picture of keratosis pilaris. The extensor surfaces of the arms and thighs and the flexor surfaces of the legs are primarily affected.

*Xerosis or asteatosis of the skin:*
Dryness, scaliness and crinkling, in extreme cases resembling alligator skin. In early stages the condition is associated with keratosis pilaris but it persists and extends after follicles have disappeared, the body hairs being broken and later lost. All parts of the body are involved, but the skin of the extremities, particularly of the legs, is more severely affected than the skin of the head and the trunk.

*Follicular conjunctivitis:*
Hypertrophy of the follicles, particularly of the lower eyelids.

*Night blindness:*
Conspicuous only in cases of advanced, severe deficiency.

*Keratomalacia:*
Thickening with subsequent ulceration and necrosis of the cornea: present only in most severe and advanced forms of deficiency.

### Stigmas suggesting deficiency of thiamine

*Loss of strength* of the quadriceps: disproportionate to loss of general strength, evidenced by difficulty in rising from the squatting position.

*Loss of vibration sense:* first of the toes and later of the malleoli and tibias.

*Tenderness of the calves and hyperesthesia of the feet:*

*Diminution and loss of the achilles tendon and patellar reflexes first.* Other tendon reflexes are lost in the later stages of the polyneuritis of "dry beriberi."

*Edema* of the shins, ankles and knee joints: found in "wet beriberi."

*Enlarged heart with dependent edema* and elevated venous pressure: Poor response to rest and administration of digitalis unless thiamine is given. This is a late manifestation of severe deficiency (beriberi heart).

*Papillary edema with retinal hemorrhages:* associated with ophthalmoplegia and polyneuritis. The condition is a late manifestation of severe deficiency.

### Stigmas suggesting deficiency of riboflavin

*Congestion of the limbic plexus:*
Visible with a small hand lens or the +20 lens of the ophthalmoscope; invasion of the cornea by capillaries arising from this plexus (vascularization) requires a biomicroscope and slit lamp for detection.

*Cheilosis:*
Represented in chronic deficiency by excessive and irregular wrinkling, in acute deficiency by swelling and erasure of the normal wrinkling of the lips. Reddening, thinning, scaling, chapping of epithelium are associated.

### *Treatment of vitamin A deficiency*

*Early deficiency state:*
25,000 U. S. P. units of vitamin A twice daily for two months or longer.

*More chronic states:*
25,000 U. S. P. units of vitamin A two to three times daily for a prolonged period.

### *Treatment of thiamine deficiency*

*Acute deficiency state:*
10 to 20 mg. or more of thiamine twice daily until relief of symptoms; this may be days or weeks.

*Chronic deficiency state:*
5 to 10 mg. or more of thiamine twice daily for a prolonged period.

### *Treatment of riboflavin deficiency*

*Acute deficiency state:*
5 mg. of riboflavin three times daily for weeks.

*Chronic deficiency state:*
3 to 5 mg. of riboflavin three times daily for a prolonged period.

1. Handbook of Nutrition: A Symposium Prepared Under the Auspices of the Council on Foods and Nutrition of the American Medical Association, 1943.
2. Jolliffe, Norman: The Preventive and Therapeutic Use of Vitamins, J. A. M. A. **129**: 613 (Oct. 27) 1945.

*Angular stomatitis:*
Various combinations of erythema and open fissuring in the angles of the mouth with or without a white, moist maceration (perlèche); scars of healed fissures.

*Dyssebacia:*
An erythema overlaid with somewhat greasy, flaky accumulations resembling hoar frost, noted mostly in the alae nasi, canthi, pinnae and other folds of the skin, accompanied in some cases by coarsening and elevation of the sebaceous follicles of the nose and cheeks, the latter also seen with deficiency of vitamin A.

*Magenta tongue:*
A purplish red coloring with moderate edema and flattening of filiform papillae; observed in more advanced deficiency.

### Stigmas suggesting deficiency of niacin

*Edema of the tongue:*
Shown by dental indentations.

*Increased redness of the tongue:*
Beefy red in chronic states; scarlet red in severe acute deficiency.

*Congestion and hypertrophy of the papillae of the tongue, followed by fusion and atrophy:*
In early stages the fungiform papillae are congested and hypertrophied. This is followed by hypertrophy of the filiform papillae and later by their flattening. As they atrophy they fuse or mat together with multiple fissuring to give a cobblestone appearance and finally baldness. Vincent's infection of tongue and fauces, ulceration and pseudomembrane formation may or may not accompany these changes in the more advanced stages of this deficiency.

*Dermatitis:*
Erythema, rough scaling, with ulceration and formation of bullae, affecting primarily areas of the skin exposed to light; namely, wrists, ankles, neck and face; observed only in severe deficiency (pellagra) and then frequently associated with diarrhea and dementia.

*Encephalopathy:*
Clouding of consciousness, cogwheel rigidity and grasping, sucking reflexes observed in acute, severe deficiency.

### Stigmas suggesting deficiency of ascorbic acid

*Redness, edema, tenderness and bleeding on pressure of the gums:*
Observed in acute or subacute deficiency of moderate severity, sometimes with, but usually without, other signs of ascorbic acid deficiency.

*Thickening and increased firmness of the gums:*
With recession and exposure of the base of the teeth, including recession of interdental papillae; observed in chronic deficiency.

*Retraction of the gums:*
Leaving pockets between gum and tooth, secondary infection and resulting pyorrhea; observed in chronic deficiency.

*Loosening and shedding of the teeth.*

*Increased capillary fragility:*
Manifested by petechial hemorrhages of the skin, especially in the tourniquet test; observed in more severe acute and subacute deficiency. Easy bruising, spontaneous ecchymosis of the skin, idiopathic hemorrhage into joints and slow healing of wounds, observed in severe acute and subacute deficiency.

### Stigmas suggesting deficiency of vitamin D

*Deformities of the skeleton:*
Bowed legs, malformation of the chest (funnel breast) and defects of the teeth may be residues of early rickets which is usually no longer active or susceptible to treatment; enlargement of the wrists, elbows, knees, ankles and chostochondral junctions (beading, rachitic rosary) and bulging forehead (cranial bosses) which respond to treatment are found in infancy and in the rare example of late rickets.

### Stigmas suggesting deficiency of vitamin K

*A tendency to bleeding:*
Particularly from minor wounds, related to abnormal lengthening of the prothrombin time, developing spontaneously in newborn infants; observed in adults after treatment with dicumarol or large doses of salicylates; in advanced disease of the liver with poor excretion of bile, and in disease of the intestine, such as sprue in which vitamin absorption is disturbed.

### *Treatment of niacin deficiency*

*Acute deficiency state:*
100 mg. or more of niacinamide twice daily for weeks.

*Chronic state:*
100 mg. of niacinamide twice daily over a prolonged period.

### *Treatment of ascorbic acid deficiency*

*Acute or subacute deficiency state:*
100 mg. or more of ascorbic acid for weeks.

*Chronic deficiency state:*
100 mg. of ascorbic acid three times daily over a prolonged period.

### *Treatment of vitamin D deficiency*

*In infants:*
1,500 to 2,500 U. S. P. units of vitamin D daily, continued for several months (double this amount for premature infants)

### *Treatment of vitamin K deficiency*

*In adults:*
1 mg. of vitamin K two to three times daily with or without bile (1 Gm. of desiccated bile or bile salts).

*In newborn babies:*
1 mg. of synthetic vitamin K intramuscularly daily in oil solution for several days.

### Deficiency symptoms

A diagnosis of vitamin deficiency only rarely can be based on symptoms or less significant abnormalities than those which have been listed thus far. However, such symptoms and abnormalities frequently accompany the more specific lesions of deficiency.

Symptoms commonly observed with deficiency of thiamine, also less conspicuously in deficiency of other vitamins, include apathy, lethargy, increased emotional irritability, hypersensitivity to noise and painful stimuli, headache, vague fears, confusion of thought, uncertainty of memory, asthenia, loss of manual dexterity, insomnia, heart consciousness, paresthesia, anorexia, nausea, flatulence, epigastric pain, constipation.

Photophobia, burning of the eyes, lacrimation and eyestrain not relieved by glasses are encountered in deficiency of riboflavin.

Other abnormalities unrelated to deficiency of any single vitamin but commonly observed in persons who are malnourished are dry, brittle, lack-luster, rebellious, so-called staring head hair, a loss of sleekness analogous to the rough coat of malnourished animals, blepharitis, spider-like telangiectasis of the face, seborrhea of the face, patchy pigmentation of the face, especially suborbital and circumoral sinus arrhythmia, bradycardia, tachycardia, low blood pressure, loss of tone of muscles and anemia.

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SATURDAY, JUNE 22, 1946

## STUDIES IN REVIVAL OF ORGANISMS

From his observations in animal experiments on revival after exsanguination, Negovski [1] emphasizes that death does not always occur abruptly. The final changes responsible for true biologic death are usually preceded by a period of so-called clinical death, which begins when heart action and respiration cease. Clinical death in many instances represents a reversible transition from life to death. Intra-arterial administration of blood under pressure is not a complete method of resuscitation; in fact, the results have been somewhat disappointing. Artificial respiration, of equal importance, must be started immediately after revival and must be sufficiently intensive. This prompt application, necessary for starting the first spontaneous gasp and indirectly for early return of eye reflexes, may decide the outcome of the entire effort. The appearance of the spontaneous gasp in the second minute of revival leads to recovery of nearly 100 per cent of animals, while a delay of nine minutes means death of all reviving animals; if revival is to be followed by a complete and lasting recovery, the period of clinical death must not last longer than five or six minutes. Temporary revival can occur after longer periods of clinical death, but the animals do not live long, since the nervous system in such animals is not completely restored. During the revival the heart begins to function first; later the tone of the vessels is reestablished, and finally spontaneous breathing is resumed. The reflex excitability of the respiratory center is reestablished earlier than that of the vasomotor center. Spontaneous respiration precedes restoration of the respiratory center reflex. Thus during death the older mechanism of respiratory function survives longer, and during revival this primitive system of humoral regulation is restored more promptly than the highly evolved system of reflex regulation. The return of the separate groups of muscles into the respiratory effort also takes place in reverse order. The contractions of neck muscles return first, the movements of the thoracic cage follow, and finally the diaphragm begins active contraction. Negovski's experimental and clinical observations demonstrate that the more sensitive portions of the central nervous system, without which life is impossible, cannot survive complete anemia for a period exceeding five to six minutes. The sequence in which different functions of the central nervous system return is determined by the phylogenetic development of corresponding parts of the brain. Areas of the brain which are older phylogenetically were restored sooner. Microscopic study of the brain of dogs revived after protracted periods of six to twenty minutes of clinical death revealed striking irreversible changes.

As a rule, the earlier any given function makes its appearance in the process of ontogenesis or phylogenesis the sooner is it restored during revival. The heart revives before spontaneous respiration is restored. In the beginning the revived heart is not amenable to regulation by its nerves. In general, during the first steps of revival the effects of automatism are seen, representing the intrinsic activity of organs not yet subordinated to control by the nervous system. In the early stages of revival anaerobic respiration is the first to appear as oldest phylogenetically. During revival external respiration, for example diaphragmatic respiration, which first appears phylogenetically in reptiles, is restored later than costal. Also the oldest mode of respiratory regulation, the humoral, appears earlier than the reflex control. Only at some later time does there appear the reflex control, which represents the later type of control in the evolutionary development. The central nervous system responds to revival later than all other structures, and its individual functions return in the order of phylogenesis. The older functions in general are more stable, for in the process of dying there is an earlier extinction of those functions which phylogenetically are more recent. In this sense the return to life recapitulates in reverse order the ebbing of life; those processes which resist death the longest or die the latest are those which revive the earliest.

Investigations carried out in a maternity clinic on the effect of anemia on the central nervous system of the newborn reveal that the resistance of the newborn to blood loss, especially of their central nervous system, is quite considerable. Contrary to the accepted view, the author's experiences suggest that breathing may be restored in the newborn even when heart action has stopped with prompt institution of revival measures. The spontaneous respiration of the newborn can be restored with the aid of the pulmotor after exsanguination lasting for thirty minutes, and, if feeble heart action should be present, restoration of spontaneous breathing is possible as late as two hours after birth.

1. Negovski, V. A.: Agonal States and Clinical Death: Problems in Revival of Organisms, Am. Rev. Soviet Med. 3: 339 (April) 1946.

## TEMPORAL ARTERITIS: A NEW DISEASE ENTITY

Horton, Magath and Brown [1] reported in 1931 observations on 2 patients with fever, weakness, anorexia, loss of weight, anemia, mild leukocytosis and painful tender areas over the scalp and along the temporal vessels. These symptoms had been present from four to six weeks. Localized periarteritis and arteritis were present in each case. Relapses and complete remissions had occurred in both. Study of the microscopic sections of the blood vessels removed for biopsy disclosed identical lesions. Both patients apparently recovered completely from the local condition, although one died two years later from congestive heart failure. The bacteriologic studies were largely negative. The authors believe that the condition described represents a new clinical syndrome the etiology of which is obscure. Dick and Freeman [2] in 1940 reported 2 similar cases and pointed out the characteristic occurrence of giant cells in the inflammatory process of the involved artery. Gilmour [3] described postmortem studies in 4 cases of what he termed giant cell chronic arteritis of unknown etiology. The histologic picture, although involving many branches of the aorta and the internal and external carotid arteries, frequently presented a focal distribution. The presence of multinuclear giant cells was the same as described for cases of temporal arteritis. Sproul's [4] postmortem study of a typical case of temporal arteritis revealed profound alterations in the arterial tree. The multinucleated giant cell proliferation was a prominent microscopic feature. Murphy's [5] patient, a woman aged 71, made a rapid recovery after the removal of a segment of the temporal artery about 5 cm. in length. Necropsy in a case of characteristic temporal arteritis reported by Chasnoff and Vorzimer [6] revealed a diffuse involvement of the arterial system. These authors emphasize that arteritis of the temporal vessels is probably a local manifestation of a systemic arterial disease which cannot be regarded as nonfatal.

In a recent article in the *Quarterly Journal of Medicine* Cooke and his associates [7] review the literature on the subject and add 7 cases to the total of 31 reported in the literature. Analysis of the cases so far reported shows that headache was a prominent feature of the syndrome and was present at some time in all cases. In 6 of the authors' cases the temporal artery showed thrombosis. Many cerebral symptoms have been noted, probably caused by the involvement of the cerebral vessels. At least half of all the patients had visual disturbances, leading in many instances to complete loss of sight. The varying types of eye symptoms and signs suggest that the disease must affect the arterial supply of the optic and ocular motor nerves and the retina in varying degree. Inflammation of the temporal artery is striking because of thickening and reddening along its course. Postmortem examinations carried out in 2 of their cases revealed the characteristic histologic picture in the aorta and the temporal, radial, subclavian, femoral, coronary, retinal, celiac and mesenteric arteries. Differentiation of the syndrome from other diseases involving the blood vascular system, such as periarteritis nodosa and thromboangiitis obliterans, is not always easy because of many similarities.

Both biopsy and postmortem observations in temporal arteritis have been unsatisfactory so far in that these studies were made at different stages of the disease, so that a clear conception of the pathologic process has been impossible to obtain. The treatment is to a great extent systemic. In some cases varying amounts of relief were obtained either from a resection of a segment of the temporal artery involved or of a biopsy. The therapeutic effect of nicotinic acid, of potassium iodide in large doses and of thiamine is difficult to evaluate in the small number of cases thus treated. The prognosis is relatively good as regards life, although with the generalized character of the disease it may be fatal in some cases.

1. Horton, B. T.; Magath, T. B., and Brown, G. E.: Arteritis of the Temporal Vessels, Arch. Int. Med. **53**: 400 (March) 1934. Horton, B. T., and Magath, T. B.: Arteritis of the Temporal Vessels: Report of 7 Cases, Proc. Staff Meet., Mayo Clin. **12**: 548 (Sept. 1) 1937.
2. Dick, George F., and Freeman, Gustave: Temporal Arteritis, J. A. M. A. **114**: 645 (Feb. 24) 1940.
3. Gilmour, J. R.: Giant Cell Chronic Arteritis, J. Path. & Bact. **53**: 263 (Sept.) 1941.
4. Sproul, E. E.: A Case of "Temporal Arteritis," New York State J. Med. **42**: 343 (Feb. 15) 1942.
5. Murphy, J. R.: The Syndrome of Temporal Arteritis, New York State J. Med. **42**: 2236 (Dec. 1) 1942.
6. Chasnoff, Julius, and Vorzimer, J. J.: Temporal Arteritis: A Local Manifestation of a Systemic Disease, Ann. Int. Med. **20**: 327 (Feb.) 1944.
7. Cooke, W. T.; Cloake, P. C. P.; Govan, A. D. T., and Colbeck, J. C.: Temporal Arteritis: A Generalized Vascular Disease, Quart. J. Med. **15**: 47 (Jan.) 1946.

## CHILDHOOD MORTALITY FROM ACCIDENTS

Today accidents account for more deaths in childhood than almost any other cause. White children under 20 years of age dying annually from accidents include 34,129 boys and 14,916 girls, and for the nonwhite group 5,976 boys and 2,990 girls. This gives a sex ratio, boys to girls in the white group, of 2.2 and for the nonwhite group a sex ratio of 2.0. Nonwhite infants of both sexes suffer from fatal accidents more than twice as often as white infants. In the age group 5-9 years, white boys show twice as many accidents as white girls. Between 15 and 19 years white boys suffer nearly four times as many fatal accidents as white girls, and among nonwhite children the boys have a still higher ratio. In a differential study George Wolff [1] shows that the death rates for accidents are highest in infancy, lower in the preschool and lowest in the elementary school age. These rates rise again in adolescence with the beginning of occupational life.

The high rates in the first year of life are due largely to mechanical suffocation, obstruction, suffocation or puncture by ingested objects. Although the total death

1. Wolff, George: Deaths from Accidents Among Children and Adolescents, Child **9**: 83 (Dec.) 1944; Childhood Mortality from Accidents, Children's Bureau, U. S. Department of Labor.

rate for accidents is high in infancy when compared with other age groups, it loses much of its significance through the greater prevalence of other causes of death at this age, such as premature birth, pneumonia and influenza, congenital malformations, injury at birth and diarrhea and enteritis. In preschool age, school age and adolescence accidents become increasingly predominant because of the great decline in deaths from tuberculosis and acute infectious diseases. After infancy the most important causes of accidental deaths in childhood are motor vehicle accidents, drowning, burns, injuries by firearms and injuries by falls.

The racial differential in fatalities from accidents is not great except for the infant year, when nonwhite children suffer twice as high a death rate as white children; in all other age groups of childhood the ratios of nonwhite to white range between a minimum of 1.1 and the maximum of 1.4. Motor vehicle accidents occur consistently more often among white children of all ages. The same is true for accidental drowning among the preschool and younger school children. A consistently higher death rate exists for nonwhite children of all ages for food poisoning, conflagration and accidental burns and for other accidental poisoning and for injuries by firearms. Differences between the sexes for fatal accidents are more striking than those between the races. These differences can be explained by differing risks, behavior and susceptibilities of the sexes that may be inborn or acquired. For example, the boys are more daring and even foolhardy; the girls are more timid and mature earlier, both physically and mentally.

## Current Comment

### THE DIAGNOSIS OF CHRONIC BRUCELLOSIS

Brucellosis is one of the most important of the "new" diseases discovered in recent times by bacteriologic methods. As emphasized by Harris,[1] brucellosis should receive consideration early in the diagnosis of obscure illness. Unfortunately there is as yet not available any easy adequate specific means of diagnosis of chronic brucellosis. The agglutination test is of significance only if positive. A positive intradermal test indicates increased sensitivity, but it does not tell whether the infection is still active. Negative skin tests have been observed in active brucella infection. The opsonophagocytic test requires perfect technic with a virulent Brucella strain. Increased phagocytosis with a positive skin test, the symptoms suggesting brucellosis, points to a still active infection. The only definitely diagnostic procedure is isolation of Brucella by culture from the patient. This concerns one of "the most difficult of all bacteria to isolate," and the cultural methods now in use are hardly practicable for daily routine work in the clinical laboratory. The actual frequency of arthritis in brucellosis is not known. The facts at hand point to a high incidence. Of 157 arthritic patients observed by Goldfain [2] about half were believed to have brucellosis also. Of 427 patients with brucellosis studied by Harris,[1] 74 had atrophic or hypertrophic arthritis. Harris reports in detail 2 remarkable cases of advanced progressive atrophic arthritis, close study of which pointed to brucellosis as a factor. Treatment of these cases included brucella vaccine and was followed in 1 case by cure, in the other by improvement in progress when the report was made. Systematic study of the relation of brucellosis to chronic arthritis should be promoted. Among localizations of chronic brucellosis are those in the female genitourinary tract. Here tubal brucellosis appears to be of frequent occurrence but of infrequent recognition. A better understanding of various chronic infections certainly requires more adequate cultural study, with special reference to the detection of brucellosis. The importance of this infection calls for the organization of cooperative investigations of the problems of diagnosis and treatment.

1. Harris, H. J.: Brucellosis, Bull. New York Acad. Med. **22**: 147 (March) 1946.

2. Goldfain, Ephraim: Chronic Arthritis and Undulant Fever: Their Interrelationship, J. Oklahoma M. A. **31**: 111 (April) 1938.

### FOURTH OF JULY FIREWORKS INJURIES

For five consecutive years from 1937 to 1941 inclusive the American Medical Association collected statistics relating to Fourth of July accidents resulting from fireworks and explosives. The published analyses of these statistics were widely used in campaigns throughout the country to promote legislation banning the use of fireworks and for a safe and sane Fourth. With the end of the war, indications have come from several sources that fireworks manufacturers contemplate renewed campaigns to distribute explosives for use in celebrating Independence Day. If this occurs, the inevitable result will be a great increase in the number of avoidable accidents from this source. Consequently THE JOURNAL this year is resuming its collection of data on fireworks injuries. Questionnaires are being sent to hospitals throughout the country, and their cooperation in the careful recording of fireworks injuries and prompt return of the information is urgently requested.

### OUTLINE OF VITAMIN DEFICIENCIES

There appears in this issue (pp. 666 and 667) an outline of the changes in the body resulting from vitamin deficiencies and their effective treatment. This material has been prepared by the Council on Foods and Nutrition in conjunction with medical nutritionists familiar with the clinical detection of vitamin deficiency. The signs and symptoms given in the outline represent current authoritative opinion as regards the stigma of vitamin lack. As stated in the introductory comment, present knowledge does not justify the characterization of many of these changes as conclusive or pathognomonic, particularly when observed as an isolated finding. Rather the abnormal finding should be considered as suggestive of the presence of a deficiency the existence of which should be corroborated by the finding of other changes and a history of dietary inadequacy.

# MEDICINE AND THE WAR

## ARMY

### AVIATION MEDICAL EXAMINERS

A class of medical officers who have successfully completed the Aviation Medical Examiners' Course were recently graduated at the AAF School of Aviation Medicine, Randolph Field, Texas. Brig. Gen. Eugen G. Reinartz, commandant of the school, presented the diplomas.

### AWARDED MERITORIOUS UNIT PLAQUE

The Meritorious Unit Service Plaque was recently awarded to the Pasadena Regional Hospital, Pasadena, Calif., for superior performance of duty in the maintenance of a high standard of discipline during the period Oct. 1, 1945 to March 31, 1946. On May 15, 1946 the Pasadena Regional Hospital became a general hospital and was renamed McCornack General Hospital. It will become a plastic surgery and ophthalmologic center.

### ARMY AWARDS AND COMMENDATIONS

#### Captain Donald W. Cheff

Capt. Donald W. Cheff, Wilmington, Del., was recently awarded the Silver Star and the Bronze Star, posthumously. The Silver Star was awarded to Captain Cheff for action on April 16, 1945 on Iwo Shima, the day he lost his life. The citation told how he landed with a platoon of his collecting company twenty-five minutes after H hour and set up a collecting station on the beach. He led his litter bearers inland through heavy small arms fire and then returned to the beach, where he learned that casualties were mounting and that because of the long arduous litter haul there would be extended delay in evacuation. By that time two ¼ ton ambulances had been landed. Although Captain Cheff had been informed that the road to the regiment was insecure, heavily mined and under constant small arms fire, he personally led the ambulances to the battalion aid station, working through continuous enemy fire over a mine-strewn road. He evacuated 8 casualties to the beach and then led the ambulances back and loaded them with 8 more casualties. While proceeding back to the beach on the second trip, the ambulance in which he was riding struck a mine which killed all occupants.

The Bronze Star medal was awarded the medical officer for action on Leyte on Dec. 13, 1944. During intense fighting troops suffered so great a number of casualties that it was impossible for litter bearers to evacuate the wounded from the battalion aid station because all routes to the rear had been cut off. There existed only a route across 300 yards of rice paddies, waist deep in water. Captain Cheff obtained an amphibious tractor to cross the paddy, directed it to the aid station and fearlessly accompanied it to the front lines where men had not yet been treated. Dr. Cheff graduated from the University of Nebraska College of Medicine, Omaha, in 1937 and entered the service June 20, 1942.

#### Colonel Durward G. Hall

Col. Durward G. Hall, formerly of Springfield, Mo., was recently commended by Lieut. Gen. John C. H. Lee, U. S. Army, commanding, who said "Prior to your departure from the Mediterranean theater it is desired to commend you for the outstanding manner in which you performed your assigned mission of investigating the redeployment and utilization of medical department personnel in this theater. Although assigned a definite War Department objective, you approached our medical problems with an open mind and visited every medical activity within the theater to determine by intimate contact our requirements to fulfil the assigned mission of this theater. In spite of the exhausting nature of such a thorough survey in a limited period of time, you devoted many hours to acquainting individuals with the War Department redeployment policies and answering questions of personal interest to the individual. Your keen perception and sound judgment resulted in recommendations to the War Department for adequate medical personnel and facilities to meet minimum occupational requirements. These fair recommendations, which were made as a result of your searching survey, would not have been possible without an intimate knowledge of the problems presented."

Colonel Hall was also commended by Robert P. Patterson, Secretary of War, who wrote "I learn that you are about to terminate your tour of duty in the Surgeon General's Office following completion of your mission to the European and Mediterranean theaters, and I wish to take this occasion to express to you my appreciation of the services which you have rendered over the past four months in assisting me in speeding up the release of medical department officers from the Army. This work has been of an unusually valuable character and has been a direct aid to me in my discharge of the personal responsibility which I assumed last fall in this matter. I wish to commend you officially for it."

Colonel Hall also received the Legion of Merit. Accompanying this award was a citation stating, in part, "Col. Durward G. Hall, while serving in the Office of the Surgeon General in connection with personnel service from April 1942 to August 1945, was largely responsible for establishing numerous valuable personnel procedures. His outstanding achievement in bringing great numbers of urgently needed doctors to the armed forces was an effective contribution to the welfare of the sick and wounded of World War II." Dr. Hall graduated from Rush Medical College, Chicago, in 1935 and entered the service Jan. 2, 1941.

#### Major Bernard S. Klauber

Major Bernard S. Klauber, New York, was recently authorized to wear the Army Citation Ribbon by direction of the Secretary of War for performance of meritorious service while serving as assistant chief of the neuropsychiatric service, Kennedy General Hospital, Memphis, Tenn., during the period January 1945 to December 1945. "Despite acute shortage of psychiatrists, Major Klauber cheerfully sacrificed virtually all his time and effort to achieving his mission. His unselfish devotion to duty reflects great credit on himself and the military service." Dr. Klauber graduated from New York University College of Medicine, New York, in 1933 and entered the service Sept. 14, 1942.

#### Captain Charles Marguiles

The Purple Heart and the Oak Leaf Cluster were recently presented to Capt. Charles Marguiles, New York, for wounds received on June 7 and June 9, 1944 during the invasion of Normandy. Dr. Marguiles graduated from New York University College of Medicine, New York, in 1933 and entered the service Jan. 23, 1941.

#### Colonel Joseph M. Hayman Jr.

Col. Joseph M. Hayman Jr., Cleveland, was recently awarded the Legion of Merit for his outstanding work as chief of medical service at the Army's Tropical Disease Center, Moore General Hospital, Swannanoa, N. C. Dr. Hayman graduated from the University of Pennsylvania School of Medicine, Philadelphia, in 1921 and entered the service in January 1942.

#### Captain David Hadley

Capt. David Hadley, Indianapolis, was recently awarded the Bronze Star for going to an ambushed signal corps group and giving first aid, and for helping to rescue two airmen from a fallen plane and giving them first aid. Dr. Hadley graduated from the Indiana University School of Medicine, Indianapolis, in 1940 and entered the service April 27, 1942.

# NAVY

## NAVY AWARDS AND COMMENDATIONS

### Commodore Thomas B. Magath

The Legion of Merit was recently awarded to Commodore Thomas B. Magath, Rochester, Minn., for "exceptionally meritorious conduct . . . as investigator for and adviser to the Surgeon General of the Navy on matters of sanitation and tropical medicine, as navy representative on the Interdepartmental Quarantine Commission and as navy quarantine officer. . . . He visited many of the principal countries of the world . . . helping to lay a foundation for future quarantine practices with special reference to air traffic." Dr. Magath graduated from the University of Illinois College of Medicine, Chicago, in 1920 and entered the service June 21, 1941.

### Lieutenant Commander Russell M. Jensen

The Navy Unit Commendation Ribbon was recently awarded to Lieut. Comdr. Russell M. Jensen, San Diego, Calif. The citation read "By virtue of your services in the unit during the above period (Dec. 7, 1941) you are hereby authorized to wear the Navy Unit Commendation Ribbon, which is transferred herewith. This authorization has been made a part of your official record in the Bureau of Naval Personnel. The commendation is issued by direction of Chief of Naval Personnel W. C. Palmer Jr., Lieutenant Commander, U.S.N.R." Dr. Jensen graduated from Northwestern University Medical School, Chicago, in 1936 and entered the service Feb. 4, 1941.

### Captain Aclpfar Arell Marsteller

The Legion of Merit was recently awarded to Capt. Aclpfar A. Marsteller, Chevy Chase, Md., "for exceptionally meritorious conduct in the performance of outstanding services to the government of the United States in successive positions as organizer and medical officer in command of the Naval Mobile Hospital Number Six in New Zealand; as medical officer in command of Navy Base Hospital Number Six in the advanced area; as Medical Officer in command of the United States Naval Hospital, San Leandro, Calif., and as special assistant in neuropsychiatry to the chief of the Bureau of Medicine and Surgery. Because of his professional qualifications in neuropsychiatry and psychiatry and his unusual ability to organize and administer naval hospitals, Captain Marsteller was selected to establish the only neuropsychiatric hospital in the advanced areas and to reorganize two other hospitals in which the majority of patients were suffering from neuropsychiatric conditions. Suggesting improved methods for the treatment of combat fatigue, he helped to make rehabilitation possible for a large number of cases and by his professional advice and experience rendered service of inestimable value on the Clemency Board. Captain Marsteller's devotion to duty throughout his many assignments contributed to the health and welfare of personnel of the United States Naval Service." Dr. Marsteller graduated from the Medical College of Virginia, Richmond, in 1906 and entered the service Sept. 14, 1921.

### Captain Albert M. Snell

Capt. Albert M. Snell, Rochester, Minn., was recently commended by the Secretary of the Navy "for meritorious performance of duty as chief of the medical service, United States Naval Hospital, Oakland, Calif., from March 20, 1944 to Nov. 5, 1945. An inspiring leader and teacher, Captain Snell rendered invaluable service in efficiently administering the medical work at this hospital despite the tremendous turnover in patients. Outstanding in the field of internal medicine, he was highly regarded by civilian leaders in this field in the San Francisco area and, by his important work with these specialists, brought great credit to the Naval Medical Corps. Captain Snell's untiring devotion to the care of the sick and injured was in keeping with the highest traditions of the United States Naval Service." Dr. Snell graduated from the University of Minnesota Medical School, Minneapolis, in 1918 and entered the service Dec. 26, 1941.

## THIRTY-EIGHTH ANNIVERSARY OF NAVY NURSE CORPS

The Navy Nurse Corps on May 13 celebrated the thirty-eighth anniversary of its establishment. In recognition of the occasion, Secretary of the Navy James Forrestal sent the following congratulatory message to Vice Admiral Ross T. McIntire, Surgeon General of the Navy:

"On the thirty-eighth anniversary of the Nurse Corps, I want to express, on behalf of the Navy Department, my congratulations to the Corps for its able performance in the war and its continuing activity in peace.

"To the Nurse Corps may be attributed a substantial share of credit for the Navy's low death rate of casualties. Throughout the war, at advanced bases, afloat and in the air, as well as at home, navy nurses carried on their vital work with patience, devotion, fortitude and skill in the best traditions of their profession and of the Navy."

## LONG ISLAND COLLEGE OF MEDICINE COMMENDED

A Navy Department certificate of commendation was recently awarded to the Long Island College of Medicine for its part in training officers for the Medical Corps under the Navy C V-12 program.

# VETERANS

## VETERANS' APPOINTMENTS

Dr. Charles R. Hess, Philadelphia, recently accepted an appointment in the Department of Medicine and Surgery of the Veterans Administration. He will assume the duties of physician in tuberculosis at the Veterans Administration Hospital, Oteen, N. C.

Dr. Elmer P. Sauer, Pittsburgh, recently accepted an appointment in the Department of Medicine and Surgery of the Veterans Administration. He has assumed the duties of tuberculosis specialist at the Veterans Administration Hospital, Dayton, Ohio.

Dr. Irving Pine, Binghamton, N. Y., recently accepted an appointment in the Department of Medicine and Surgery of the Veterans Administration. He has assumed the duties of physician in tuberculosis at the largest Veterans Administration Tuberculosis Hospital, Oteen, N. C.

Dr. Charles J. Kaufman, Denver, recently accepted an appointment in the Department of Medicine and Surgery of the Veterans Administration. He has assumed the duties of chief of the tuberculosis section at the Veterans Administration Hospital, Castle Point, N. Y.

Dr. Neville H. McNerney, formerly of Cleveland, has been appointed medical director of the Veterans Administration branch office number 6, with headquarters at 52 South Starling Street, Columbus, Ohio. He will have jurisdiction of the Veterans Administration activities in Ohio, Kentucky and Michigan.

## HOSPITAL CORPS VETERANS

Ruth O. Kirkland, national secretary of the National Association of Veterans of the Hospital Corps, recently stated that this organization is setting up local chapters all over the states and is urging that doctors, hospitals and industry as a whole hire these medically trained veterans through the national headquarters office, 1705 M Street N.W., Washington 6, D. C., or through the local chapters of the National Association of Veterans of Hospital Corps.

The National Association was chartered Aug. 14, 1945 in the District of Columbia. Those eligible for membership are honorably discharged hospital corpsmen of the Navy and Coast Guard and medical corpsmen of the Army.

# PHYSICIANS SEPARATED FROM SERVICE

## ARMY MEDICAL CORPS OFFICERS RECOMMENDED FOR/OR RELIEVED FROM ACTIVE DUTY

### Alabama

Gordon, George R.....Birmingham
Long, William F.....Birmingham
McCarn, Dan W.....Warrior
McLeod, John C. Jr.....Bay Minette
Moody, Frank S.....Tuscaloosa
Nicholson, William H. Jr.....Fairfield
Noble, William.....Atalla
Richardson, Peter L.....Tuskegee
Richey, Carl B. Jr.....Fort Payne
Trucks, James F.....Birmingham

### Arizona

Gonzalez, Pablo M.....Clifton
Porter, Dwight H.....Phoenix
Reed, Ernest C.....Whipple

### Arkansas

Kirkland, Samuel S.....Marshall
Magness, William C.....Camden
Reed, Charles C. Jr.....Little Rock
Turnbow, Robert L.....Little Rock

### California

Acquarelli, Mario J.....Pasadena
Arnold, Harry J.....San Jose
Bartlett, Alexander G.....San Francisco
Berlove, Ira J.....San Francisco
Clark, Wilfred S.....Ventura
Cunningham, Ralph T.....Bakersfield
Davis, Barnard.....San Francisco
Edwards, James S. Jr.....San Francisco
Effron, Morton.....Los Angeles
Feinstein, Walter.....Los Angeles
Gardenier, Crane.....San Francisco
Gill, Gerald G.....Oakland
Goldman, Mervin J.....San Francisco
Goldstein, David M.....Los Angeles
Green, Sydney H.....Alcatraz Island
Hall, Colby.....Los Angeles
Harper, Howard E.....Los Angeles
Harrod, Charles S.....San Francisco
Highman, Walter J. Jr.....San Francisco
Jamison, Robert C.....Sacramento
Jones, William A.....Los Angeles
Kelley, Douglas M.....San Francisco
Kellogg, Frederick.....Long Beach
Kimball, Theodore S.....Glendale
King, Stuart D.....Pasadena
Kirz, Edward A.....Los Angeles
Laubhan, Royle K.....San Francisco
LeDuc, Isidor E. Jr.....San Diego
Lee, Gilbert.....Los Angeles
Levin, Edward A.....San Francisco
Lomas, Max I.....Los Angeles
Lovell, Robert A.....San Gabriel
Lyster, Russell W.....Los Angeles
Macer, George A.....Pasadena
May, Angelo M. Jr.....San Francisco
Meals, Robert W.....Los Angeles
Mintz, I. Lew.....Los Angeles
Miracle, Floyd A.....Los Angeles
Mollenhauer, Robert L.....San Francisco
Newkirk, Merlin L.....South Gate
Nisbet, Thomas W.....Pasadena
Paoli, Theodore H.....San Francisco
Paullus, George E. Jr.....Los Angeles
Pearl, Milton J.....San Francisco
Peers, Robert S.....Oakland
Pierose, Perry N.....Los Angeles
Pitlick, William J.....Pasadena
Powers, Francis I.....Glendora
Quinn, Vincent J.....Los Angeles
Rebell, Frederick G.....Los Angeles
Reilly, William A.....San Francisco
Reinberg, Martin H.....Los Angeles
Renger, Julius J.....Ventura
Richards, Dexter N. Jr.....Berkeley
Royak, Anthony S.....San Francisco
Rucker, Rufus C.....Oakland
Schenk, Harry L.....Los Angeles

### California—Continued

Schneiderman, Abraham.....Los Angeles
Shapiro, Morton.....Los Angeles
Shinbane, Hyman J.....Los Angeles
Sinclair, Archibald D.....San Francisco
Slocum, Yudell K.....Van Nuys
Staley, Percy A.....Palm Springs
Stanton, Elvin H.....Glendora
Steindel, Sam.....Los Angeles
Stephenson, William H.....Los Angeles
Stern, Bruce D.....Los Angeles
Sturgeon, Phillip.....West Los Angeles
Thompson, Donald G.....Los Angeles
Thompson, Kenneth J.....Piedmont
Thompson, Robert P.....San Francisco
Thompson, Vernon P.....Los Angeles
Thorner, Meyer C.....Los Angeles
Townsend, Kenneth.....Los Angeles
Traxler, Paul S.....Los Angeles
Warnock, Ernest H.....San Marino
Weitz, Marion G.....San Bernardino
Westerhout, Fritz C.....Manhattan Beach
Westphal, Glenn A.....Elsinore
Wier, Robert H.....Los Angeles
Wilson, Clay M.....Pasadena
Wolff, Frederick S.....San Francisco
Woro, Benjamin.....Chowchilla
Wright, Vinton H.....Los Angeles
Wyers, Robert E.....Spadra

### Colorado

Gilman, Harold E.....Denver
Holmes, Harry S.....Springfield
Menser, Thomas D.....Trinidad
Morgan, David W.....Denver
Mousel, Claude M.....Frederick
Randall, Morton H.....Denver
Sadler, Jackson L.....Fort Collins
Straub, John C.....Flagler
Thorsness, Edwin T.....Denver

### Connecticut

Abrahams, Meyer.....New Canaan
Comstock, Edward R.....New London
Donnelly, William A.....Bridgeport
Flynn, Harold A.....New Haven
Monahan, David T.....Bridgeport
Rogol, Louis.....Danbury
Sheiman, Milton.....Bridgeport

### Delaware

Feltz, Thomas F.....Wilmington
Lawrence, Charles T.....Wilmington
Maroney, John W.....Wilmington
Strobino, Louis J.....Wilmington
Washburn, Victor D.....Wilmington

### District of Columbia

Barton, Jackson A.....Washington
Cross, Allen S.....Washington
Danish, Jacob M.....Washington
Fugitt, Elmer W.....Washington
Pellegrini, Frank S.....Washington
Reeves, Clyde P.....Washington
Smith, James K.....Washington
Swartwout, John A.....Washington
Taggart, Samuel R.....Washington
Tierney, Gerald M.....Washington
Trenis, John W.....Washington
White, Herman C.....Washington
Whitesell, Frank B. Jr.....Washington
Whitman, Beniah L.....Washington
Wilson, Alfred.....Washington

### Florida

Boros, William K.....Miami
Frederick, Albert R.....St. Petersburg
Garcia, Louis J.....Tampa
McLeod, Norman W. Jr.....Miami
Messer, Addison L.....Tallahassee
Murphey, Daniel F. H.....St. Petersburg

### Florida—Continued

Nuzum, Russell K. Jr.....Miami
Poppe, Frederick P.....Miami
Ravitch, Samuel J.....Quincy
Ringer, Edward L.....Lakeland

### Georgia

Arp, Charles R.....Atlanta
Berg, Joseph L.....Augusta
Bolt, William C.....Atlanta
Bramblett, August W. Jr.....Forsyth
Ferrell, Thomas J.....Waycross
Frierson, Norton Jr.....Atlanta
Lovejoy, George S.....Atlanta
McAfee, John C.....Macon
Rambo, John H. T.....Atlanta
Rasmussen, Earl.....Emory University
Tucker, John P.....Augusta
Tyler, Herbert D.....Atlanta

### Idaho

Talbot, Robert E.....Wilder
Tall, Asael.....Rigby

### Illinois

Adland, Samuel A.....Chicago
Anderson, James O.....Downey
Aufrecht, Ernst.....Benton
Baleiko, Walter F.....Oak Park
Blair, Earl H.....Chicago
Blaufuss, Armin L.....Geneva
Blier, Zachary A.....Chicago
Buttemiller, George.....Libertyville
Canfield, Bruce H.....Rockford
Cinelis, Adolph R.....Marengo
Cohlan, Wilbur R.....Chicago
Collins, Jerre C. Jr.....Cairo
Curtis, David T.....Farmer City
Davis, John Llewellyn.....Quincy
De Silva, Edward B.....Rock Island
Farrington, Joseph D.....Chicago
Fleck, Warren L.....Downers Grove
Freeland, John E.....Waukegan
Gray, Thomas J.....Rockford
Gustafson, Joseph G.....Moline
Hajduk, John M.....Chicago
Hardt, Harry G. Jr.....Chicago
Hirz, Max.....East St. Louis
Howell, Joseph D.....Marshall
Kane, Jerry J.....East St. Louis
Kinzer, Richard E.....Chicago
Larrain, Abel R.....Chicago
Lebovitz, Louis.....Chicago
Levey, Calvin I.....Chicago
Lombardo, Ignace P.....Chicago
Marks, Louis M.....Chicago
Mundt, G. Henry Jr.....Chicago
Nachman, Adolph R.....Chicago
Nelson, Charles A.....Pekin
Palmer, William H.....Rockford
Partipilo, Anthony V.....Chicago
Pastron, Seymour S.....Chicago
Perry, Edward J.....Chicago
Phelps, Gardner D.....Chicago
Phillips, Frederick L.....Chicago
Pisarski, Edmund S.....Chicago
Pope, George J.....Chicago
Price, Harold.....Chicago
Queen, Frank B.....Chicago
Ransom, Gilbert T.....Fairfield
Ries, Lincoln.....Chicago
Rosenblum, Bernard F.....Chicago
Rosengard, Jerome L.....Chicago
Saxon, Leonard.....Chicago
Schlesinger, Lee H.....Hines
Schorr, Hyman J.....Chicago
Seron, Vaheh M.....Joliet
Serota, Herman M.....Chicago
Siemens, Roman.....Chicago
Skinner, Merton B.....Joliet
Snyder, Rufus A.....Chicago

# PHYSICIANS SEPARATED FROM SERVICE

### Illinois—Continued

Stansfield, Joseph T.....Mt. Carmel
Stazio, Gerald M.....Chicago
Stearns, Alexander L.....Chicago
Steckel, Richard H.....Chicago
Steinberg, David W.....Chicago
Stenn, Fred F.....Chicago
Stephens, Edward F.....Centralia
Sullivan, William B.....Chicago
Sutch, Vincent J.....Champaign
Sweitzer, Caesar.....Chicago
Terrell, Elmer E.....Paris
Tulsky, Alex S.....Chicago
Tysell, John E.....Chicago
Weiss, Leon H.....Chicago
Werbel, Harold J.....Chicago
Willett, Bradford J.....Chicago
Wonderly, Earl W.....Aurora
Yamazaki, James N.....Chicago

### Indiana

Denzer, Edward K.....Evansville
Dick, Jack.....Huntington
Fodor, Oscar A.....South Bend
Funkhouser, James B.....Indianapolis
Gladstone, Naf H.....Fort Wayne
Godersky, George E.....South Bend
Graham, Thomas G.....Lafayette
Grigsby, Robert E.....Ligonier
Gros, Hubert.....Delphi
Hammersley, George K.....Frankfort
McCabe, Theodore E.....Fort Wayne
McFadden, James M.....Fort Wayne
Newcomb, William K.....Royal Center
Patton, Rudolph F.....Linton
Porter, William L.....College Corner
Premuda, Franklin F.....East Chicago
Price, James O.....Indianapolis
Reeves, James R.....Indianapolis
Reid, Charles A.....Indianapolis
Rudolph, Carl J.....South Bend
Stout, Walter M.....New Castle
Tate, A. Elizabeth G.....Dunkirk
Wicker, Eugene H.....Gary
Wood, William H.....Evansville

### Iowa

Anderson, Nevin B.....Des Moines
Egloff, William C.....Mason City
Nolan, John C.....Ogden
Peisen, Conan J.....Des Moines
Penly, Don H.....Waterloo
Rathe, Herbert W.....Waverly
Snyder, Glen E.....Grimes
Westly, Gabriel T.....Manly
Winter, Donald K.....Indianapolis

### Kansas

Glazer, Michael H.....Leavenworth
Greenwood, Edward D.....Topeka
Hokr, William K.....Ellsworth
Lepon, Arthur.....Leavenworth
McLain, Crawford E.....Kansas City
Pinsker, Jacob A.....Hutchinson
Plett, John V.....Buhler
Poling, Fowler B.....Halstead
Remsberg, Robert R.....Kansas City
White, Ralph E.....Garnett
Williams, Harold O.....Cheney

### Kentucky

Bate, John T.....Louisville
Carson, William O.....Bowling Green
Davis, William B.....Harrodsburg
Futrell, John.....Cadiz
Haynes, John E.....Dawson Springs
Liebert, Louella H.....Louisville
Manney, Willis E.....Outwood
Miller, Joseph R.....Hazel
Moore, Frank H.....Bowling Green
Phillips, Irwin E.....Worley
Reitz, John F.....Newport
Speir, Charles H.....Outwood
Twyman, Wilbert M.....Louisville
Washburn, Burton A.....Paducah

### Louisiana

Brown, Joseph W. Jr.....Thibodaux
Burnstein, Norman.....New Orleans
De Laureal, Thomas H.....Lake Charles
Fishbein, Harry.....New Orleans
Garber, Jared Y.....Lake Charles
LaBarge, Oza J.....New Orleans
Lester, Roy T.....Coushatta
Marks, Paul L.....New Orleans
Martin, Roy V.....Winnfield
Matthews, Edward D.....New Orleans
Miangolarra, Charles J.....New Orleans
Riche, Hypolite G. Jr.....Baton Rouge
Swearingen, David C.....Shreveport
Wichser, Celeste G.....New Orleans

### Maine

Applin, Hilton H.....Brunswick
Brann, Henry A.....Madison
Curran, Edward L.....Bangor
Larrabee, Charles F.....Bar Harbor
LaTourette, Kenneth A.....Farmington
Lovelace, Daniel D., Jr.....Gorham
Poore, George C.....Portland
Rosenberg, Nathan.....Togus
Sweetser, Peter W.....Caribou
Trask, Burton W.....Augusta

### Maryland

Brooks, Ross C.....Baltimore
Conn, Howard F.....Baltimore
Copeland, Murray M.....Baltimore
Finney, George G.....Baltimore
Kinnamon, Howard F. Jr.....Baltimore
Levin, Max.....Baltimore
Michaelson, Elliot.....Baltimore
Peter, Arnold L.....Baltimore
Scott, John M.....Baltimore
Spear, Paul W.....Baltimore
Stone, Douglas H.....Baltimore
Strong, James C.....Sparrows Point

### Massachusetts

Banquer, Jacob E.....Boston
Bluhm, Samuel.....Dorchester
Carr, Francis H.....Worcester
Cleary, George H.....Medford
Cross, Merrill M.....Clinton
Cruff, Frederick E.....Norwell
Cutler, Isadore L.....Waltham
Dodge, George A.....Brookline
Finck, Albert J.....Brookline
Gavolio, Frank J.....Waltham
Grife, Harry E.....Roxbury, Boston
Lipman, Daniel G.....Lynn
Looney, Joseph M.....Norwood
McDermott, John R.....Methuen
Manelis, Samuel R.....New Bedford
Miller, Nathaniel B.....Greenfield
Nugent, Richard S.....Wellesley
Palladino, Charles A.....Lynn
Pratt, Thomas D.....Brookline
Raisbeck, Alden.....Boston
Rosenblum, Garson M.....Worcester
Shipp, Luther M.....West Medford
Souliotis, Paul T.....Worcester
Splaine, Russell L.....Belmont
Steinberg, Irving H.....Northampton
Sullivan, Charles R. Jr.....Pittsfield
Twarog, Walter L.....Lowell
Whiting, Richard G.....Medford
Woolf, Ralph B.....Dorchester

### Michigan

Blashill, James B.....Detroit
Blum, Benjamin B.....Petoskey
Bookstein, Abraham M.....Detroit
Byrnes, Allen W.....Fort Custer
Cotant, John F.....Detroit
Dana, Harold M.....Detroit
Doyle, Charles R.....Lansing
Durocher, Raymond E.....Ecorse
Fajans, Stefan S.....Ann Arbor
Farhat, Maynard M.....Flint
Fill, Leon.....Detroit

### Michigan—Continued

Fulgenzi, Andrew A.....Detroit
Gabe, Sigmund.....Detroit
Gordon, William H.....Detroit
Gray, Edwin F.....Flint
Greenbaum, Henry.....Detroit
Hart, Charles E.....Detroit
Hart, Russell T.....Niles
Harvey, Harmon T.....Detroit
Howard, Merildeen W.....Detroit
Laird, James I.....Dearborn
Lane, Milton.....Bay City
List, Martin L.....Ann Arbor
MacMillan, James M.....Detroit
Mattson, Harold F.....Hillsdale
Metes, John.....Pontiac
Newkirk, John A.....Norway
Porritt, Ross J.....Pontiac
Postma, Edward Y.....Grand Rapids
Reck, Lawrence E.....Adrian
Robinson, Harold A.....Detroit
Rosenman, Leonard D.....Detroit
Schwartz, Oscar D.....Detroit
Sluyter, John S.....Grand Rapids
Stokfisz, Thaddeus.....Detroit
Tarter, Clyde S.....Bay City
Taylor, Ivan B.....Detroit
Tellman, Henry C.....Muskegon
Timmons, John R.....Detroit
White, Prosper D.....Highland Park
Wiltberger, Benjamin R.....Detroit
Winfield, James M.....Detroit

### Minnesota

Allen, Edgar V.....Rochester
Freeman, Charles D. Jr.....St. Paul
Godwin, Bernard E.....Minneapolis
Hagen, Kristofer.....Minneapolis
Harper, Samuel B.....Rochester
Kauvar, Abraham J.....Rochester
King, Llewellyn H.....St. Cloud
Kuhlmann, Lawrence B.....Melrose
Murphy, Joseph E.....Marshall
Musachio, Nicholas F.....Foley
Nelson, Carleton A.....Minneapolis
Nelson, Kenneth L.....Montgomery
O'Brien, William M.....St. Paul
Palmerton, Ernest S.....Albert Lea
Potek, David M.....International Falls
Sevenants, John J.....Minneapolis
Sharpe, Wendell S.....Rochester
Stransky, Theodore W.....Owatonna
Stroebel, Charles F.....Rochester
Taylor, Edward S.....Worthington
Thouin, Laurence G.....Hibbing
Tudor, Robert B.....Hibbing
Weisel, Wilson.....Rochester
Wetzel, Earl V. Jr.....Little Falls
Wulf, Robert F.....Rochester
Wyant, Marcus E.....Park Rapids

### Mississippi

Cooke, Gaines L.....Coffeeville
Graves, James A.....Biloxi
Moseley, Thaddeus M.....West Point
Mounger, Samuel G.....Yazoo City
Sheely, Wallace P.....Gulfport
Smith, Mason C.....Meridian
Street, Richard A. Jr.....Vicksburg
Sugg, Samuel C.....Calhoun City
Swindoll, Bryant S.....Slate Springs

### Missouri

Berney, Francis J.....St. Joseph
Cason, Elbert H.....St. Louis
Catanzaro, Anthony F.....St. Louis
Edwards, Ernest V.....Kirkwood
Fitzgerald, Leo P. T.....University City
Jessell, Charles T.....Higginsville
Kaminsky, David.....St. Louis
Malinowski, Mitchell V.....St. Joseph
Martin, William R. Jr.....Joplin
Mueller, Clarence E.....St. Louis
Park, Oakley K. Jr.....St. Louis
Piekarski, Anthony A.....St. Louis

# PHYSICIANS SEPARATED FROM SERVICE

### Missouri

Porter, Columbus H.....Poplar Bluff
Robertson, Robert B.....Cabool
Smith, Hugh Reinhardt.....St. Louis
Stapp, Roth V.....Kansas City
Summers, Joseph S. Jr.....Jefferson City
Tinney, Malcolm J.....St. Louis
Williams, Pearl A.....St. Louis
Wissmath, Frank S.....Clayton
Wolf, Jack W.....Kansas City

### Montana

Hall, Cecil M.....Great Falls
Mitschke, John J. Jr.....Helena

### Nebraska

Clarke, Roger G.....Seward
Cullen, George Jr.....Lincoln
Downing, John E.....Omaha
Dworak, Henry L.....Omaha
Podlesak, James I.....Lincoln
Sydow, Henry.....Omaha
Tushla, Francis M.....Auburn
Williams, Martin P.....Franklin
Wilson, Donald J.....Omaha

### Nevada

Nash, Louis.....Las Vegas

### New Hampshire

Mulvanity, Richard T.....Nashua
Parkinson, Dwight.....Hanover
Weinberg, Julius.....Concord
Wolff, Max H.....Manchester

### New Jersey

Baldini, Charles F. Jr.....Union City
Balson, Zachary D. B.....Newark
Brandman, Otto.....East Orange
Downs, Louis S.....Carteret
Franco, Biagio.....Palisade
Gehl, Raymond H.....Newark
Glaus, Samuel D.....Avon
Goldstein, Oscar E.....Passaic
Gullord, Edward G.....Upper Montclair
Hendrickson, Harold W.....Audubon
Kibbe, Milton H.....Plainfield
Kimmel, M. Leonard.....Jersey City
Kruger, Alfred L.....Jersey City
Kuperman, Henry L.....Newark
Lieberman, Milton L.....Rosell Park
McCracken, Josiah C. Jr.....Ventnor
Marquise, Albert T.....Trenton
Martin, Leonard J.....Orange
Miller, Nathan.....Irvington
Ornaf, Ignace E.....Camden
Palazzo, William L.....Boonton
Pollock, Theodore.....Clifton
Raso, Frank L.....Union City
Reilly, Christopher J.....Newark
Rogers, Richard M.....East Orange
Roston, Mark A.....Newark
Rothgesser, Jerome C.....Newark
Saunders, George R.....Maplewood
Schultz, John M.....West New York
Simon, Julius J.....Passaic
Sperling, Irving L.....Newark
Tocci, Frank P.....Verona
Weekes, Leroy R.....Atlantic City
Whelan, Vincent M.....West End
Wollack, Alfred R.....Park Ridge
Wood, Alfred E.....Jersey City

### New Mexico

Barzune, Benjamin.....Eunice
Pavletich, Louis M.....Raton
Peacock, Wendell H.....Farmington
Tubbs, William M.....Silver City

### New York

Abrams, Raymond M.....Elmhurst
Abramson, Harry.....Brooklyn
Alsever, William D.....Syracuse
Anderson, John V.....Delevan
Baum, Victor.....Brooklyn

### New York—Continued

Bauman, Stewart.....Syracuse
Bednarz, Steven I.....Welfare Island
Berkman, William H.....Brooklyn
Berlin, Irving.....New York
Berman, Samuel S.....New York
Bickel, Juda B.....Brooklyn
Blanchard, George C. Jr.....New York
Blaustein, Irving H.....Brooklyn
Carey, Edward T.....New York
Carotenuto, Ralph J.....Brooklyn
Chasen, William H.....Brooklyn
Chipkin, Irving.....Brooklyn
Clark, Bliss B.....New York
Cohen, Harry M.....New York
Colella, Michael A.....Rome
Crouse, Irving I.....Buffalo
Dana, Edward.....Suffern
Dick, Frederick S.....New York
Dorf, Victor.....Brooklyn
Evers, Thomas J. Jr.....Manhasset
Falsey, Edward F.....Brooklyn
Feldman, Samuel L.....Yonkers
Felmus, Laurence B.....New York
Ferrante, Frank F.....Brooklyn
Fimia, Victor J.....New York
Fine, Bernard D.....New York
Ford, John R.....Gloversville
Fraden, William.....Bronx, New York
Fradkin, Irvin M.....Freeport, L. I.
Fried, Emery I.....Bronx, New York
Friedman, Harry M.....Utica
Gay, Remo E.....Brooklyn
Gellar, Abraham.....Brooklyn
Gentner, George A.....Buffalo
Gerbasi, Michael J.....Rochester
Getzlek, Jack.....Utica
Gingsberg, Victor.....Brooklyn
Gitman, Leo.....Brooklyn
Glashow, Jules L.....Atlantic Beach, L. I.
Glass, Ameil.....New York
Glick, Jacob J.....Brooklyn
Goldfarb, Walter.....Forest Hills
Goodfried, Milton S.....New York
Gottlieb, Hugo.....Forest Hills
Graceffo, Frank A.....Auburn
Graff, Frederick L.....New York
Green, Daniel M.....Valley Stream, L. I.
Green, Marvin C.....New York
Greenberg, Louis.....New York
Groeber, Edward O.....Brooklyn
Gross, Arnold.....Utica
Gross, Reuben.....Brooklyn
Haas, Merrill P.....New York
Hellman, Sidney J.....Bronx, New York
Hendler, Hyman B.....Lynbrook, L. I.
Herfort, Robert A.....New York
Howard, Rainie G.....Lyons
Hyams, Robert G.....New York
Ireland, Corydon B.....Buffalo
Jacobs, John B.....Brooklyn
Jarus, William M.....Canastota
Johnson, Harry G.....Buffalo
Kanner, Morris.....Brooklyn
Kaplan, Mayer S.....Brooklyn
Kass, Albert.....Bronx, New York
Kaunitz, Paul E.....New York
Kornbluth, Leon.....Brooklyn
Kuhn, Horace F.....Machias
Kupferberg, Julius D.....Bronx, New York
Lacey, Warren W. Jr.....Brooklyn
Lacy, Curtis R.....Freehold
La Duca, Paul.....Angola
Landmann, Heinz R.....New York
Laven, Henry.....Brooklyn
Lesnick, Gerson J.....New York
Letterese, Anthony J.....New York
Lichtenfeld, George.....Lake Ronkonkoma
Lieberman, Jess J.....Brooklyn
Lief, Harold.....Rockaway Beach
Linderman, Nicholas.....Buffalo
Lippman, Richard W.....New York
Lipschutz, Paul C.....Middletown
Livingston, Herman H.....New York
Lizzi, Arthur J.....Brooklyn

### New York—Continued

Loomis, Herbert E.....Johnson City
Lopyan, Milton.....Brooklyn
McCarthy, Edwin E.....Auburn
McCormack, Richard R. C.....New York
McMartin, Daniel M.....Johnstown
Mangels, Martin Jr.....Hollis, L. I.
Margulies, Bernard.....Brooklyn
Margulies, Charles.....Brooklyn
Markel, William M.....New York
Marvin, Joseph H.....New York
Meisner, Adolph.....Brooklyn
Mele, Dominick.....Schenectady
Mendeloff, Joseph.....New York
Miller, David B.....Elmira
Mirsky, Louis H.....Brooklyn
Morris, Abner.....Hewlett
Musselman, Martin L.....Buffalo
Nayer, Herman R.....New York
Nightingale, Michael M.....New York
Oliver, Samuel.....Woodmere, L. I.
Padwisocka, Louis K.....New York
Pascucci, Lucien M.....New York
Pastore, Lucien.....Ballston Spa
Patt, Jesse.....Bronx
Pauncz, Arpad.....New York
Pearl, Herbert.....Brooklyn
Percival, Robert T.....Brooklyn
Peterson, John W.....Brooklyn
Phelps, Joseph.....Deposit
Portnoy, Louis.....New York
Povlin, Sheppard S.....New York
Preston, Robert L.....New York
Quandt, Marshall W.....Waterford
Queally, Francis J.....Yonkers
Rao, Joseph A.....Brooklyn
Raphael, Murray.....New York
Reed, George F.....Troy
Ridley, James B.....New York
Ritey, Hector J.....New York
Rivellese, Julius C.....Brooklyn
Rizzolo, Alfred F.....Wingdale
Rosenbluth, Sidney B.....New York
Rosenkrantz, Jacob A.....New York
Rosenthal, Abraham.....Brooklyn
Ross, Harold G.....St. Johnsville
Rubin, Gustav.....New York
Runge, Carl F.....Schenectady
Rupert, Arthur W.....Albany
Sager, Bernard.....Brooklyn
Sanford, Donald B.....Syracuse
Schaffeld, Henry G.....Brooklyn
Schisano, Salvator A.....Jackson Heights
Schoenfeld, Irving.....New York
Schopick, Louis E.....Bronx
Schrenk, Felix A.....Chestertown
Schwartz, I. Richard.....Brooklyn
Schwartz, William A.....Brooklyn
Scialabba, Joseph.....Brooklyn
Seley, Gabriel P.....New York
Selikoff, Solomon J.....Brooklyn
Shannon, Thomas R.....Glens Falls
Shapiro, Howard E.....Brooklyn
Sheintoch, Hyman R.....Brooklyn
Shenkman, Samuel.....New York
Sher, Malcolm F.....New York
Silverman, Isadore J.....New York
Simon, Jesse S.....Brooklyn
Sklar, Harry.....Hempstead
Smith, Philip H.....New York
Sobol, Jacob M.....New York
Solomon, Samuel L.....Brooklyn
Spigelman, Louis.....Jamaica
Stahler, Christopher Jr.....Albany
Steckler, Julius.....New York
Stein, Alexander.....New York
Stephens, Charles A. L. Jr.....New York
Stern, Seymour H.....New York
Stevens, George E.....Hudson
Stickney, John W.....Elmhurst
Stillman, Isadore W.....Brooklyn
Stone, Melvin L.....New York
Stumpf, Winfield E.....Forest Hills
Surtshin, Adolph.....New York
Svedlow, Bernard D.....Bronx

# PHYSICIANS SEPARATED FROM SERVICE

### New York—Continued

Taft, Richard H.....Yonkers
Tannenbaum, Herman.....New York
Taylor, Charles W.....Kings Park
Thorpe, John J.....New York
Thurrott, John C.....New York
Tibone, James J.....Rockville Centre
Tillman, Alvin J. B.....New York
Tobey, Max.....New York
Townsend, Alden J.....Dansville
Turney, Miller F.....Bronxville
Waldman, Milton M.....Bronx
Walsh, Redmond B.....Bronx
Ward, George J.....Cohoes
Weitzner, Imre.....New York
Wels, Philip B.....Buffalo
White, Algird F.....Brooklyn
White, Edward L.....Woodhaven
White, Roger E.....Brooklyn
Wiener, Louis M.....Long Island City
Wilkinson, Joseph B.....Bronx
Williams, Mark H.....Binghamton
Willner, Victor.....Woodmere, L. I.
Willoughby, Robert J.....Rochester
Winston, Thomas M.....Sayville
Winter, Alexander.....New York
Winter, Leonard.....Bronx
Wolff, Julian.....Forest Hills, L. I.
Woodin, William G.....Dunkirk
Wright, Kenneth B.....New York
Yudell, Milton H.....Bronx
Zaia, Anthony J.....Oneida
Zankan, Leo.....Brooklyn
Zavisca, Ernest G.....Endicott
Zobel, Harold.....Brooklyn

### North Carolina

Boney, Elwood R.....Kingston
Bruce, William H.....Winston-Salem
Corwin, Warren C.....Greensboro
Green, Donarell R. Jr.....Durham
Haines, Charles E. Jr.....Durham
Hardre, Rene.....Greensboro
Lambert, Critz F.....Spruce Pine
Lott, William C.....Asheville
Martin, Lester P.....Mocksville
Moore, Robert L.....Hickory
Morey, Milton B.....Newport
Redwine, James D.....Lexington
Smith, Opie N.....Greensboro
Stauffer, Charles C.....Durham
Street, John M.....Durham
Teasdale, Laurie R.....Charlotte
Weinstein, Morton H.....Fairmont
Williams, McChord.....Charlotte
Wilson, George D.....Kernersville

### North Dakota

Rich, George T.....Grand Forks

### Ohio

Adelman, Louis.....Cleveland
Allison, Henry W.....Oak Hill
Asahina, Shoichi.....Toledo
Barnhiser, Von Bergen.....Camden
Beeman, Harry O.....Port Clinton
Best, Marshall M.....Xenia
Bowman, Brack M.....Youngstown
Boyle, Peter L.....Youngstown
Braun, Emery J.....Akron
Brody, Melvin.....Canton
Brooks, Louis H.....Cleveland
Chazin, Benjamin J.....Dayton
Crum, Louis J.....Cincinnati
Finke, Frederick C.....Columbus
Floridis, Gregory G.....Dayton
Foertmeyer, Charles H.....Cincinnati
Freedman, Eugene.....Cleveland
Frush, Riley E.....Lexington
Gillespie, Emerson.....Canton
Glorioso, John A.....Lima
Goldberg, Morris.....Columbus
Herman, William W.....Cleveland
Hillegass, Victor E.....Akron
Hochhausler, Carl J.....Cincinnati

### Ohio—Continued

Ipp, Herman H.....Youngstown
Jacques, Richard H.....Cleveland
Junkermann, Edgar B.....Columbus
Kalina, Roger K.....Cleveland Heights
Keys, Harry J. Jr.....Bexley
King, James D.....Columbus
Kunz, Franklyn C.....Akron
Lauer, Howard.....Dayton
Markey, Oscar B.....Shaker Heights
Maurer, Elmer P. R.....Cleveland
Moreland, Marion T.....Columbus
Mowry, Robert S.....Lima
Muckley, James M.....Akron
Needham, Leslie E.....Conneaut
Neiswander, Paul L.....Ada
Niswander, Floyd G.....Pandora
Paisley, Ralph C.....Loudonville
Pillersdorf, Louis.....Cleveland
Piper, Robert S.....Cincinnati
Pitkin, York N.....Shaker Heights
Pokerr, Leo A.....Fremont
Pugh, Luther S.....Perrysburg
Raitz, Roswell E.....Cincinnati
Regan, William L.....Wilmington
Rosenbliett, Sidney.....Chillicothe
Sakler, Allen M.....Cincinnati
Schilling, Albert H.....Cincinnati
Schonberg, Irving L.....Cleveland
Shapiro, Jacob.....Delphos
Shipley, Thomas B.....Canton
Shroder, Luther N.....Greenville
Solmgen, William F.....Cincinnati
Sternlieb, Max.....Wadsworth
Stinson, Wilbur V.....Dayton
Strauss, Victor M. B.....Cincinnati
Tapke, Robert J.....Cincinnati
Thomas, James J.....Alliance
Treece, Harold K.....Arlington
Turner, Ray M.....Springfield
Vinocur, Joseph L.....East Cleveland
Wahl, Robert H.....Dayton
Weinberg, Herman C.....Cleveland
Willoughby, John R. Jr.....Warren
Yantes, Edmond K.....Reynoldsburg
Young, John W.....Empire

### Oklahoma

Martin, Howard C.....Oklahoma City
Martin, James D.....Cushing
Paul, Thomas O.....Durant
Sutliff, Edward H.....Lawton
White, Manford S.....Blackwell

### Oregon

Forster, Donald E.....Portland
Fox, Thomas J.....Portland
MacDaniels, Laurence K.....Portland
Sneeden, Vinton D.....Portland
Thompson, Douglas Q.....Pendleton
Tupker, Eugene P.....Salem
Ullmann, Egon V.....Portland

### Pennsylvania

Ambler, Bruce.....Abington
Barnhart, John W.....Washington
Barra, Sylvio J.....Reading
Bausch, Frederick R. Jr.....Allentown
Benson, Jacob M.....Philadelphia
Boas, Harry.....Pittsburgh
Boland, Francis P.....Scranton
Brodsky, William A.....Philadelphia
Carberry, Blaine E.....Ford City
Carp, Leon M.....Philadelphia
Castelli, Peter J.....Bridgeville
Cherry, Bernard J.....Philadelphia
Clark, Thomas W.....Chestnut Hill
Corey, William T.....Munhall
Deardorff, John E.....Gettysburg
Deblasio, Silvio H.....Dunbar
Decherney, William.....Philadelphia
Derickson, George V.....Womelsdorf
Dusckas, James J.....Erie
Foertsch, Jack H.....Pittsburgh
Forse, David P. Jr.....Pittsburgh

### Pennsylvania—Continued

Furlong, Raymond J.....Jenkintown
Glaudel, Stanley F.....Philadelphia
Graham, Charles F.....Library
Guarini, Pasquale B.....Philadelphia
Hall, Collins F.....Williamsport
Hofmann, Valentine A.....Mars
Jacobs, Donald R.....Waynesburg
Johnston, David A.....Colonial Park
Juele, Roosevelt R.....Philadelphia
Kanofsky, Abram.....Philadelphia
Klitch, George M.....Harrisburg
Knox, Earl R.....Claysville
Kochenderfer, Thomas T.....Arcola
Kramer, Saul X.....Pittsburgh
Langford, James G.....Chester
Lavely, Horace T. Jr.....Harmonsburg
Lehman, Charles A., Jr.....Williamsport
Lichstein, Jacob.....Philadelphia
Lipinski, Joseph F.....New Kensington
McAloose, Louis T.....Hazleton
Maloney, Milton C.....Hanover
Manly, James P.....Scranton
Marquand, Edgar A.....Berwick
Marthouse, Stephen J.....Tyrone
Metzger, Tom B.....Lancaster
Miller, Samuel G.....Pittsburgh
Mitchell, Howard F.....Rochester
Moll, George A.....Jenkintown
Nicholas, Charles A.....Easton
Nimoityn, Benjamin S.....Philadelphia
Novey, Peter J.....Reading
Palkovitz, Joseph.....Pittsburgh
Park, Felix R.....Bala Cynwyd
Parkhurst, Leonard W.....Merion Station
Pohowsky, Alex Jr.....Scranton
Polischuk, Wasyl J.....Lester
Poorman, Sturgis S.....Narberth
Potelunas, Clement B.....Wilkes-Barre
Potter, Leonard L.....Littlestown
Prescott, Henry F.....Cressona
Prietsch, Bernard C.....Pittsburgh
Raddin, Joseph B.....Drums
Reis, Paul B.....Palmyra
Repman, Harry J. Jr.....Charleroi
Ruben, Joseph E.....Pittsburgh
Schultz, Merritt C.....Johnstown
Schwartz, Abraham I.....Reading
Schwartz, Edward.....Chester
Scott, James V.....Pittsburgh
Siberski, Dominic B.....Plymouth
Skwirut, Frank A.....Chester
Soltroff, Jack G.....Philadelphia
Spano, Anselmo V.....Clifton Heights
Stanton, Edward V.....Philadelphia
Stengel, Alfred Jr.....Philadelphia
Sterling, Julian A.....Philadelphia
Straub, Elmer L.....Philadelphia
Streck, Fletcher W.....Phoenixville
Stricker, Robert S.....Wilkes-Barre
Strouse, J. W.....Hulmeville
Thomas, Arthur B.....Pittsburgh
Thompson, Charles W.....Ford City
Trott, Clinton W.....Philadelphia
Urbaitis, John C.....Philadelphia
Wagner, Alfred W.....Philadelphia
Waisbrot, Edward L.....Philadelphia
Waite, Knighton V.....Renton
Waring, John Henry.....Boyertown
Weddell, James R.....Elizabeth
White, George S.....Uniontown
White, John M. Jr.....Philadelphia
White, Wesley R.....Clarks Green
Wiest, Philip R.....Reading
Wilkinson, James S.....Philadelphia
Winters, Albert H.....Pittsburgh
Wood, Charles R.....Wesleyville
Worrell, Ralph C.....Springtown
Zulick, Philip D.....Orwigsburg

### Vermont

Bashaw, Donald L.....Winooski
Woodruff, John H. Jr.....Burlington

### Canal Zone

Struve, Edgar E.....Ancon

# MEDICAL OFFICERS RELEASED BY THE NAVY

## NAVAL RESERVE MEDICAL OFFICERS RECOMMENDED FOR RELEASE FROM ACTIVE DUTY

### California

Armbruster, Albert C....Monterey Park
Bates, Gaylord S.....Claremont
Beebe, S. R.....San Francisco
Belous, Leon P.....Los Angeles
Bethard, William F.....San Diego
Bethel, Robert D.....San Jose
Bromberg, Walter .....San Francisco
Bumpus, Hermon C.....San Marino
Burtness, Hildahl I.....Santa Barbara
Bush, Robert L.....Glendale
Byrne, Ralph V.....Los Angeles
Cameron, Markley C.....LaJolla
Campbell, Alexander D.....Claremont
Crail, Howard W.....San Francisco
Cummings, Harold R.....Oceanside
Dennis, Robert L.....San Francisco
Doyle, Gerald F.....San Francisco
Duniberti, Henry L.....San Francisco
Dykes, "H" Robert.....Taft
Ellis, John M.....Berkeley
Ellis, Orwyn H.....Los Angeles
Faulkner, Edward C.....Stockton
Frick, William O.....Los Angeles
Gerstle, Mark Lewis Jr....San Anselmo
Gibboney, Lawrence J.....Long Beach
Giovanazzi, Joseph E.....San Diego
Goldman, Theodore H.....Los Angeles
Gum, Gordon A.....Porterville
Gunther, Lewis.....Beverly Hills
Halley, Edmund P.....Stockton
Harrington, Harrel L.....San Francisco
Heard, Wesley R.....San Marino
Heinz, Vernet H.....Burlingame
Henderson, Jesse L.....Pasadena
Hodges, Gordon W.....San Bernardino
Holder, Richard M.....Pasadena
Holley, William W.....Los Angeles
Holmer, Carl T. R.....San Leandro
Howard, Francis E.....San Francisco
Hughes, Theodore J.....Corona
Lasell, Sidney L. Jr.....Pasadena
Kahlstrom, Samuel C.....Los Angeles
Kahn, Julius.....Los Angeles
Kearns, Robert J. Jr.....San Diego
Larson, John Adolph.....Anaheim
Lastreto, Emilio D.....San Francisco
McCann, William J.....Kentfield
Macaulay, Warren L.....Long Beach
McCormick, Bernard J.....Ventura
MacKinnon, Donald S.....Los Angeles
Mathews, Samuel S.....Inglewood
Mershon, Harry F.....Los Angeles
Moffitt, Herbert C. Jr.....San Francisco
Molony, W. "R" Jr.....Los Angeles
Morgan, John E.....San Francisco
Murrieta, Alfred J. Jr.....Los Angeles
Naiditch, Morris J.....Los Angeles
Newbarr, Frederick D.....Los Angeles
Noyes, Franklin L.....Los Angeles
Nunes, Aubrey J.....Cotati
Parks, Ross V.....Los Angeles
Partridge, John W.....Berkeley
Peacock, Charles E.....San Francisco
Pearson, Seibert C.....Long Beach
Pollock, Ralph C. Jr.....Long Beach
Quinn, Robert W.....Eureka
Ransom, Dow H. Jr.....San Jose
Reslock, Conrad P.....La Canada
Riskin, Alexander M.....Los Angeles
Ruby, Saul.....San Diego
Ruddy, Lorenz W.....Sacramento
Sampson, Joseph A.....Agnew
Santina, Henry.....San Francisco
Scofield, Dean S.....Los Angeles
Sears, Adrian R. M.....San Francisco
Simpson, Russell E. Jr....San Francisco
Smith, Herbert G.....Palo Alto
Smith, James B.....San Luis Obispo
Spidell, Haydon J.....Ventura

### California—Continued

Staub, John G. Jr.....Pomona
Stephens, LaRele J.....San Francisco
Stone, Robert L.....Los Angeles
Stout, Gurn T.....Los Angeles
Stuehler, Berthold R. Jr.....Daly City
Surber, Alva C. Jr.....Arcadia
Swisher, Robert C.....Vallejo
Treible, Dale P.....Inglewood
Walley, Orval J.....Long Beach
Wical, Alfred L.....Loma Linda

### Connecticut

Ashcroft, Allan D.....Stratford
Bannon, Frederick M.....Stamford
Burke, Joseph F.....Waterbury
Cacace, Vincent A.....Bridgeport
Carpentiere, Joseph.....Hartford
Celentano, Luca E.....New Haven
Daniels, Charles F.....Greenwich
Dubois, Robert L.....Waterbury
Felder, Davitt A.....Norwich
Freedman, Robert.....Stamford
Gager, John Jay.....Norwichtown
Geetter, Isidore S.....New Britain
German, William J.....Woodbridge
Goodell, Robert A.....Wethersfield
Greenleaf, Richard C. II.....Greenwich
Hazen, Donald R.....Hartford
Huyck, James H.....New Haven
Jenovese, Joseph F.....Hartford
Kramer, Harold M.....Hartford
Littman, Leon.....New Haven
Monagan, Thomas M.....Waterbury
Murphy, Thomas B.....Wallingford
Nelson, Roger B.....Waterbury
Nodelman, Jacob.....New Haven
Orlowski, Andrew W.....Torrington
Purney, John Jr.....New Britain
Raffa, Joseph.....Hartford
Roccopriore, B. A. Jr.....Middletown
Roch, George E.....Willimantic
Rosenbaum, George J.....Hartford
Scholhamer, Charles F.....New Haven
Smith, Frank E. Jr.....Kent
Smith, Stephen M.....Green Farms
Slossberg, David S.....West Hartford
Solomon, Charles I.....Meriden
Spelman, Phillip J.....Hartford
Stevens, John S.....Bridgeport
Wilson, Archibald C.....W. Hartford
Woodward, Joseph C.....New London
Zimmerman, Harry M.....New Haven

### Idaho

Woodward, Ira R. Jr.....Payette

### Illinois

Agamy, Glen N. P.....Wilmington
Allman, Joseph F. Jr.....Monticello
Altman, James S.....Springfield
Annegers, John H. Jr.....Galesburg
Bartels, Carl C.....Utica
Bateman, Michael A.....Belleville
Billings, William W.....Alton
Blanck, Earl E.....Chicago
Boland, John D.....Sterling
Bricker, Oliver H.....Downers Grove
Bridegroom, Hugh G.....Evanston
Brill, Harold M.....Chicago
Burski, Chester C.....Chicago
Carris, James V.....Moline
Carter, Harry V.....Chicago
Clark, Carl E.....Sycamore
Cohen, Morris H.....Chicago
Coomber, Ralph B.....Chicago
Cowen, Jack P.....Highland Park
Danreiter, Leroy.....Sterling
Dereng, Cornell L.....Chicago

### Illinois—Continued

Derlacki, Eugene L.....Evanston
Dreese, William C.....Evanston
Dreyer, Irving.....Chicago
Dunseth, Roy C.....Peoria
Dushane, James W.....Evanston
Fairweather, William H.....Chicago
Ferguson, Edward V.....Edwardsville
Fitzgerald, Robert H.....Chicago
Fleming, James F.....Chicago
Flynn, John R.....Chicago
Fox, Frederick G.....Chicago
Frank, Edward C.....Chicago
Friedman, Elmer A.....Chicago
Gallati, Cyril M.....Flossmoor
Geyser, Frederick P.....Lake Forest
Gilbert, Robert P.....Oak Park
Glenn, Clarence G.....Chicago
Gordon, Lourdes B.....Oak Park
Hafer, Russell L.....Argo
Harris, Ellis H.....Northbrook
Hersey, Max F.....Chicago
Hurd, Henry H.....St. Louis
Hurter, Andrew J.....Chicago
Jaskunas, Stanley R.....Cicero
Johnson, Frank E.....Chicago
Johnson, Frank K.....Winnetka
Kaplan, Morris A.....Chicago
Klabacha, Thaddeus.....Chicago
Lagorio, Francis A. Jr.....Chicago
Lavin, Michael J.....Peoria
Lewison, Matthew M.....Chicago
Linden, John M.....Freeport
Marks, Jacob L.....Chicago
Matheson, Abe.....Chicago
Mazet, Robert Jr.....Springfield
Meyer, Norman C.....Lombard
Morton, John H.....Chicago
Mueller, Charles B.....Carlinville
O'Donovan, Edward J.....Chicago
Perusse, George L. Jr.....Oak Park
Petty, Richard A.....Mt. Carroll
Potter, Robert M.....Winnetka
Pratt, Alsey C. Jr.....Nashville
Requarth, William H.....Decatur
Skiles, James H. Jr.....Oak Park
Sonenthal, Israel R.....Chicago
Stollar, Clyde P.....Chicago
Sweany, Stanford K.....Chicago
Swift, William J.....Chicago
Taymor, Joseph.....Chicago
Thimsen, Udell S.....E. St. Louis
Warfield, Chester H.....Monmouth
Weissman, David.....Chicago
Woodward, Edward R.....Chicago
Wuestenfeld, Herman E.....Wood River
Zelle, Charles K.....Springfield

### Massachusetts

Balch, Franklin G. Jr.....Newton Center
Barnes, John D.....New Bedford
Bernhardt, Henry M.....Salem
Blute, James F. Jr.....Watertown
Bolan, Samuel.....Medford
Braff, Max M.....Brookline
Brogan, John J.....Boston
Brown, Francis H.....Wellesley Hills
Cahill, John E.....Brockton
Cahill, Robert F.....Springfield
Carter, Max G.....Boston
Chace, John F.....Hudson
Cohen, Samuel C.....Milton
Cross, James E.....Walpole
Curtis, Charles M.....No. Andover
Dunham, Frederick A.....Melrose
Durant, Richard C.....Dedham
Foley, John M.....Dorchester
Gardner, George E.....Belmont
Gately, George L.....Boston
Glazer, Lewis.....Walden

# MEDICAL OFFICERS RELEASED BY THE NAVY

### Massachusetts—Continued

Green, William R.....Lowell
Hedolin, Cedric B.....Brockton
Hill, Leonard W.....Attleboro
Hill, Robert C.....Brooklyn
Kiess, Robert D.....Brookline
Kingsland, Lawrence C. Jr.....Boston
Klibanoff, Samuel.....Springfield
Koppel, William.....Brookline
Latham, David A.....Chalmsford
Lawler, William S.....Lowell
Leary, John B.....Boston
LeRoyer, Charles P.....Winchester
L'Esperance, Francis A.....Northampton
Loughlin, John F.....Dorchester
Lozner, Eugene L.....Boston
McNamara, Thomas J.....Lowell
Mahoney, Hugh F.....Tewksbury
Milner, Leo R.....Brookline
Morris, Albert E.....Reading
Mountain, David C.....Pittsfield
Myerson, Paul G.....Brookline
Rattigan, John P.....Newton Center
Riley, Conrad M.....Worcester
Ripley, Frederick W. Jr.....Newtonville

### Michigan

Banting, Oswald F.....Richmond
Barss, William A.....Ypsilanti
Beaton, James H.....Grand Rapids
Benson, Roland R.....Detroit
Brisson, Joseph C.....Detroit
Coggeshall, Lowell T.....Ann Arbor
Comstock, Raymond C.....Kalamazoo
Covill, Ronald J.....Battle Creek
Davidson, Donald L.....Shelby
Davis, George H.....Detroit
Dillon, Thomas J.....Owosso
Eastman, Peter F.....Ann Arbor
Eickhorst, Thomas N.....Flint
Emerick, Robert W.....Detroit
Fox, Ralph M.....Birmingham
Giese, Frederick W.....Detroit
Haking, Leonard.....Detroit
Harms, Herman P.....Holland
Hendricks, Roger C.....Detroit
Howlett, Robert R.....Caro
Husband, Raymond C.....Detroit
Jarvis, Harold F.....Detroit
Knutson, George O.....Negaunee
Kuiper, Klaire V. Z.....Grand Rapids
Leslie, Robert E.....Detroit
Ling, Kenneth C.....Hemlock
Minnema, Clarence.....Grand Rapids
Munson, Henry E. E.....Detroit
Newell, Philip D.....Dearborn
Pennington, Harry C.....White Pigeon
Rae, James W. Jr.....Grosse Pointe
Ries, Robert C.....Detroit
Rossen, Ralph.....Hastings
Schaftenaar, Richard H.....Holland
Still, Jacob "A".....Detroit
Ver Hey, William B.....Kalamazoo
Winter, William G.....Holland

### Minnesota

Baker, Milton E.....Minneapolis
Cain, James H.....St. Paul
Clay, Lyman B.....Minneapolis
Cronin, Donald J.....Minneapolis
Dworsky, Samuel D.....Minneapolis
Ehni, George J.....Owatonna
Ferguson, William J. Jr.....Rochester
Friden, Frank J.....St. Paul
Huber, Robert W.....St. Paul
Jacobs, Douglas L.....Willmer
Karon, Irvine M.....St. Paul
Kirkeeng, Melvin J.....Lake Benton
Knights, John A.....Bemidji
Larson, Kenneth R.....St. Paul
Lindert, Merlyn C. F...White Bear Lake
Mattison, Percy A.....Winona
Nelson, Roy A.....Fergus Falls
Norris, Lewis D.....Minneapolis

### Minnesota—Continued

Odel, Howard M.....Rochester
O'Reilly, Bernard E.....St. Paul
Pattison, Donald H.....Rochester
Pedersen, Roy C.....Duluth
Rosendahl, Frederick G.....St. Paul
Rosenow, John H.....Rochester
Schweiger, Theodore R.....Chisholm
Sickels, Edward W.....St. Paul
Smisek, Frank M.....Minneapolis
Svien, Hendrik J.....Dennison
Thomes, Arthur B.....Minneapolis
Thorsen, David S.....Minneapolis
Vail, James B.....Henning
Williams, John A.....Minneapolis

### New Jersey

Aitken, Herbert M.....Ogdensburg
Ambrose, Robert R.....Bound Brook
Anderson, Richard D.....Burlington
Apffel, Philip R.....Hawthorne
Averbach, Jacob.....Clifton
Bazilauskas, Vytautas F.....Union
Besson, Franklin J.....Short Hills
Block, Charles.....Atlantic City
Chilton, Forrest S. Jr....Pompton Plains
Clifford, Richard J.....Hackensack
Czerny, Everett W.....Westfield
DeYoe, Leon E.....Paterson
Dingman, Peter Van Cleef.....Paterson
Friedman, Harry.....Newark
Gasteyer, Theodore H...New Brunswick
Gindhart, John H.....Trenton
Graves, Charles C. Jr.....Marlboro
Gulick, James B.....Orange
Hersh, David H.....Newark
Jones, Herbert E.....Elizabeth
Kline, George L.....Bloomfield
Lawyer, Tiffany Jr.....Upper Montclair
Lemay, Albert T.....Paterson
Lerman, Samuel.....Elizabeth
Lesse, Solomon.....East Orange
LoCastro, Anthony M.....Ridgewood
McGovern, Patrick J.....Jersey City
Markowitz, Milton.....Jersey City
Miller, Bernard.....Fords
Miller, Raymond.....Trenton
Miller, Walter.....Bridgeton
Minier, Carl L.....West Orange
Moore, Condict.....Essex Falls
Murray, Clifford K.....Ventnor
Musetto, Carmelo A.....Boonton
Halprin, Harry.....Caldwell
Klompus, Irving.....Bound Brook
Payne, Guy Jr.....Verona
Re Pass, Paul E.....West Orange
Ridgway, William G.....Bridgeton
Sheehan, Daniel C.....Newark
Shreehan, Hubert F.....Newark
Smith, Jarvis M.....Verona
Stanley, Thomas A.....East Orange
Stewart, Walter A.....Gladstone
Tuly, Ralph.....South Orange
Tyler, Charles O.....Haddonfield
Williams, William E.....Rutherford
Zanni, Anthony L.....Newark

### New York

Amols, William I.....Great Neck, L. I.
Aronson, Allan R.....Brooklyn
Auchinloss, Hugh Jr.....New York
Baldwin, Charles H.....New York
Battaglia, Biagio.....Brooklyn
Bell, Julius W.....New York
Berger, Milton.....New York
Blossom, Dudley B.....New York
Boyd, Alden K.....Bay Shore
Brosnan, John J.....Brooklyn
Bryant, Robert B.....Malone
Callin, Lynn R.....Rochester
Candel, Samuel.....Brooklyn
Carmer, Myron E. II.....Lyons
Carvo, Salvatore P.....Brooklyn
Cetner, John A.....Albany

### New York—Continued

Childs, Donald S. Jr.....Syracuse
Ciner, Leonard F.....New York
Clark, Harold E.....New York
Clark, Philip J.....Poughkeepsie
Cloonan, John J. Jr.....New York
Cohan, Morris H.....Brooklyn
Cohen, Henry.....Flushing, L. I.
Darmstaetter, Armin A.....New York
Davis, Robert J.....Rochester
Delaney, C. J.....Jackson Heights., L. I.
DeLong, John B.....New York
Di Brienza, Amergo W.....Brooklyn
Dixon, Thomas W.....Brooklyn
Dodds, Harold H.....Marcy
Dodge, Edward F.....Niagara Falls
English, Howard A.....New York
Engster, Thomas P....Sag Harbor, L. I.
Esposito, Albert A.....Brooklyn
Falk, Emil A.....New York
Fishman, Jack.....Brooklyn
Fitz-Gerald, Harvey B.....Lockport
Gaines, Sidney.....New York
Getty, Ralph W.....Congers
Gilbert, Allan C.....New York
Glusman, Murray.....New York
Goldberg, Simon N.....New York
Golden, George M.....Brooklyn
Goldstein, Harold M.....New York
Goldstein, Nathan A.....Brooklyn
Goldstein, R. J.....Richmond Hill, L. I.
Goodell, James P. B.....Jamestown
Gordon, Alvin J.....New York
Gorman, Vincent A.....Kingston
Gewanter, Aaron P.....Brooklyn
Greenberg, Charles.....Wingdale
Greenwood, John H.....Syracuse
Guthrie, Keith O. Jr.....Pleasantville
Halfman, Howard W.....New York
Harer, George A.....Geneva
Harris, Charles R.....E. Rochester
Harwin, Martin.....Brooklyn
Heinrich, Jacob F...Jackson Hgts., L. I.
Hermayer, Stephen.....New York
Hickey, Robert C.....Fayette
Hillman, Robert W.....Brooklyn
Holstein, Arthur.....Brooklyn
Howes, William E.....Brooklyn
Hunter, Francis R.....Mamaroneck
Hyde, Charles R.....Brooklyn
Hyman, Joseph.....Brooklyn
Iserman, Michael.....New York
Jaffe, Harry L.....New York
Jeffries, Charles N.....Mamaroneck
Johnston, William C.....Beacon
Joseph, Harry.....Brooklyn
Katsampes, Chris P.....Rochester
Kelly, Thomas A.....Brooklyn
King, Henry J.....Binghamton
Kittell, George H.....Jamaica, L. I.
Koch, Caryl A.....Orchard Park
Kramer, Henry F. Jr.....Brooklyn
Laquidara, Vincent T.....Troy
Larsen, Frank S.....New York
Lee, James P. Jr.....New York
LeFevre, Ira D. Jr.....Schenectady
Lemboke, Paul A.....Rochester
Lichty, John Alden Jr.....Rochester
Lieber, Hyman.....New York
Lourie, Reginald S.....Brooklyn
Love, Robert A.....Goshen
Lovejoy, Frank W. Jr.....Rochester
Lowe, Frederick A.....Niagara Falls
McCann, John L.....Rochester
McKee, Frank Wray Jr.....New York
Manfredi, Daniel H.....New York
Mansell, Richard V.....New York
Marks, Robert G.....New York
Matthews, Ben L.....Binghamton
May, Justin H.....Far Rockaway
Meacham, Charles T.....New York
Mearin, Robert J.....New York
Messinger, W. J.....Kew Gardens, L. I.
Montgomery, James A.....Watertown

# MEDICAL OFFICERS RELEASED BY THE NAVY

### New York—Continued

Morris, John M.....New York
Mosher, William E. Jr.....Cortland
Muojo, Raphael A. Jr.....Sea Cliff
Mustard, Harry S. Jr.....New York
Nardiello, Vincent A. Jr...Bayside, L. I.
Neander, David G.....Saugerties
O'Donnell, Hugh B.....Newburgh
O'Kane, George H.....New York
Paley, Karl R.....New York
Paul, Neil M.....Jamesville
Pauley, Gerald I.....Bellerose
Pflum, Francis A.....New York
Poole, Charles S.....New York
Poppel, Maxwell H.....New York
Porter, Milton R.....Garden City, L. I.
Prenatt, George J.....Gardenville
Pritchard, Dale B.....Bronx
Pulito, Frank.....Brooklyn
Reagan, Lindley B.....Poughkeepsie
Riley, George J.....Troy
Riley, George T.....Binghamton
Robbins, Nathan.....New York
Roberts, Lewis A.....Bronx
Rocktaschel, William G.....Rochester
Rousseau, Paul.....Syracuse
Rubin, Lionel C.....New York
Ryan, Robert J.....Woodhaven, L. I.
Scanlan, William D. Jr.....Brooklyn
Schneider, Ralph F.....New York
Schrade, Joseph P.....Bronx
Shapiro, Abraham V.....New York
Shulman, Bernard H.....Brooklyn
Siegel, Louis.....New York
Sim, Robert P.....Yonkers
Simon, Stanley D.....Brooklyn
Skeats, John M.....New York
Smiley, Leonard V.....New York
Smith, Oney P.....Troy
Snider, John S.....Floral Park, L. I.
Stack, Donald E.....Endicott
Stapleton, Thomas D.....Auburn
Stoner, Lee H. Jr.....Delmar
Strully, Leonard V.....New York
Sullivan, Cornelius J. P.....Bronx
Sullivan, James F.....Syracuse
Terwilliger, William G.....New York
Thompson, Charles H. Jr.....Brooklyn
Tidaback, Austin J.....Brooklyn
Trichter, Benjamin.....Brooklyn
Tuthill, Percy J.....Nattituck, L. I.
Valente, Louis A.....Brooklyn
Vickers, Harry D.....Little Falls
Wahlig, Alexander F.....Bath
Walsh, John M.....Bronx
Waters, William J.....Syracuse
Weber, Charles E.....Rochester
Weimber, Clarence J.....Mt. Vernon
Weiss, George.....New York
Wells, Robert E.....Schenectady
White, Eugene A.....New Rochelle
Wiedel, Philip D.....New York
Wilcox, Truman R.....Manlius
Wilson, Armine T.....New York
Wilson, John E.....Ticonderoga
Wittson, Cecil L.....Central Islip, L. I.
Young, Lawrence E.....Rochester
Zucker, Howard D.....New York

### North Carolina

Causey, Andrew J.....Durham
Crispell, Raymond S.....Durham
Gatling, Robert R.....Gates
Hinkle, Lawrence E. Jr.....Raleigh
Hitch, Joseph M.....Raleigh
Lewis, Robert E. Jr.....Kings Mountain
Meadows, Joseph H.....Oxford
Ownbey, Edwin K.....Winston-Salem
Prichard, Robert W.....Pink Hill
Sinclair, Louis G.....Norwood

### North Dakota

Young, Robert H.....Fargo

### Oklahoma

Anderson, Ralph D.....Tonkawa
Boyer, Harold L.....Fort Towson
Branley, Bernard L.....Tulsa
Buchanan, Francis R.....Canton
Bynum, William T.....Chickasha
Chambers, Evander E.....Enid
Crawford, Sterling T.....Oklahoma City
Dodson, Harrell C. Jr.....Oklahoma City
Jenkins, Henry B.....Stillwater
McClure, William C.....Oklahoma City
McQuown, Albert L.....Cherokee
Mench, Robert M.....Oklahoma City
Shearer, Joseph M.....Enid
Slabaugh, Raymond M. Jr.....Sayre
Smith, Wendell L.....Oklahoma City
Tallant, George A.....Walters
Willard, Delbert G.....Norman
Winkelman, George W...Oklahoma City
Wynn, Noble F.....Hollis

### Oregon

Armentrout, Herbert L.....Portland
Bishop, Warren G.....Medford
Cavanaugh, William W.....Portland
Day, Robert L.....Portland
Gerow, James H.....Portland
Gius, John A.....Portland
Holcomb, Roger.....Portland
Holford, William G. Jr.....Portland
Lindgren, Aarne J.....Portland
Luehrs, Robert O.....Mollalla
McGovern, John D.....Portland
Marston, Chauncey E.....Portland
Purvine, Ralph E.....Salem
Rogers, Frederick P.....Bend
Stefan, Karl F.....Portland

### Rhode Island

Allen, Reginald A.....Providence
Cone, Thomas E. Jr.....Edgewood
Feinberg, Banice.....Providence
Fleischer, Walter E.....Newport
Howe, Calderon.....Newport
Lovering, Edwin F.....Lonsdale
Tully, William H. Jr.....Providence

### South Carolina

Bryan, Leon S.....Columbia
Feinberg, Abraham.....Charleston
Herbert, Thomas G. Jr.....Mt. Pleasant
Horger, Richard C.....Eutawville
Jenkins, William J.....Beaufort
Klauber, William A. Jr.....St. George
Paul, John R. Jr.....Charleston
Phillips, John R.....Charleston
Sellers, William H.....Charleston
Walker, Robert M.....Sumter
Ward, Simon V. Jr.....Timmonsville

### South Dakota

Hamm, Joseph N.....Deadwood
Hanson, Otto L.....Valley Springs
Myrabo, Arnold K.....Sioux Falls
Wessman, Newton E.....Sioux Falls

### Tennessee

Collins, James H.....Memphis
Cothren, Frederec B.....Chattanooga
Dobbins, Burns A. Jr.....Sweetwater
Gardner, Joseph A. Jr.....Memphis
Gary, Dan C.....Memphis
Haile, Kenneth L.....Nashville
Hicks, Howard K.....Rockwood
Hicks, Robert S.....Rockwood
O'Neil, Andrew W.....Memphis
Patton, Ernest W.....Rockwood
Ross, Kenneth G.....Memphis
Tetlow, Frank N.....Mt. Lebanon
Turner, Henry B.....Memphis
Widdis, Patrick B.....Memphis
Williamson, Charles R.....Lebanon

### Texas

Ames, Frederick D.....Houston
Baker, David M.....Ballinger
Benson, Martin H.....Lubbock
Birdwell, James W.....Tyler
Black, Ross P.....Amarillo
Blewett, Emerson K. Jr.....Austin
Coffelt, Ralph L.....Waco
Delambre, Lorry C.....Houston
Denham, Frank R.....Houston
Donahue, Francis D.....Corpus Christi
Donaldson, J. D. Jr.....Tahoka
Eberle, Howard J.....Madisonville
Evans, Howard L.....Houston
Hall, Clifford R.....Ft. Worth
Hanes, Lisburn C. Jr.....Austin
Hill, Joel M.....Fort Worth
Hill, Malone V.....Alpine
Innis, Emart R.....Fort Worth
Jenkins, Marion T.....Hughes Spring
Knolle, Robert L. Jr.....Seguin
Lea, Austin W.....Wichita Falls
Little, Archibald A.....Texarkana
Llewellyn, John S.....Liberty
McDonald, Robert P.....Fort Worth
Matlage, William T. Jr.....Sugar Land
Miller, Sidney.....Port Arthur
Mood, George F.....Houston
Much, Joseph C.....Houston
Muirhead, Ernest E.....Dallas
Neely, Robert A.....Galveston
Smith, Travis.....Temple
Stephenson, George B.....Beaumont
Stevenson, Murphy D.....Houston
Stevenson, Roger.....San Antonio
Stringer, Charles F.....Dallas
Wheelis, Allen "B".....Austin
Whittington, James H. C.....Eastland
Wiggins, James K.....Munday
Williams, Edward C.....Houston
Williams, Harold L.....Texarkana

### Utah

Fowler, Joseph B.....Salt Lake City
Holebrook, Boyd G.....Salt Lake City
Imus, Archie A.....Ogden
Malouf, Raymond N.....Richfield

### Vermont

Snay, Albert F. Jr..White River Junction

### Washington

Adatto, Carl P.....Seattle
Coddington, Frederick L.....Opportunity
Day, Charles W.....Seattle
Hadfield, Dale.....Tacoma
Hall, Donald T.....Seattle
Johnston, Richard C.....Ritzville
King, Harold G.....Seattle
Lynch, Philip C.....Olympia
Mayer, Henry, Jr.....Seattle
Moore, Telford I.....Spokane
Myhre, William N.....Spokane
Palmer, Rex B.....Seattle
Rockwell, Albert G. Jr.....Seattle
Snyder, Richard V.....Seattle
Walz, John A.....Vancouver
Wehman, Fredlyn J.....Spokane
Willis, Park W. Jr.....Seattle

### Wyoming

Atwood, John G. Jr.....Rawlins
Ceriani, Ernest G.....Rock Springs
Rowlett, Jack.....Laramie

### Hawaii

Ecklung, Archibald M.....Koloa Kauai
Walsh, William M.....Honolulu

### Puerto Rico

Bierley, John R.....Santurce
Diaz-Atiles, Alberto.....Santurce
Godinez, Marcos A.....Rio Piedras

# ORGANIZATION SECTION

## THE PRESIDENT'S REORGANIZATION PLAN

**A Statement from the American Medical Association on President Truman's Reorganization Plan No. 2 of 1946, Submitted by R. L. Sensenich, M.D., Chairman of the Board of Trustees, to the House Committee on Expenditures in the Executive Departments, June 11, 1946, in Connection with Hearings on H. Con. Res. 151.**

*(As indicated in an editorial in* THE JOURNAL, *May 25, President Truman's Reorganization Plan No. 2 proposes, among other things, to transfer to the Federal Security Agency (1) the Children's Bureau, exclusive of its Industrial Division, from the Department of Labor, (2) the functions of the Secretary of Commerce, the Bureau of the Census and the Director of the Bureau of the Census, with respect to vital statistics, including statistics on births, deaths, marriages, divorces and annulments and (3) the functions of the United States Employees Compensation Commission. The plan will become effective sixty days after the date on which it was submitted to the Congress (May 16) unless the Congress sooner rejects it by a concurrent resolution. H. Con. Res. 151, submitted by Representative Pittenger, Minnesota, proposes to reject the Plan.)*

The American Medical Association is interested in the changes proposed in Reorganization Plan No. 2 of 1946. The physician is, of necessity, interested in anything that may affect the health or provision of good medical care to patients individually and collectively in groups. These groups may vary in number from small geographic divisions, or those suffering from certain diseases, to the entire population of the nation.

Governmental public health measures are especially directed to those health problems which because of their nature or extent cannot be met successfully by the individual and must be dealt with by systematized social means. The major portion of public health activity is therefore directed to disease prevention. In more recent years, however, there have been government grants-in-aid to provide help or to stimulate interest in meeting special health needs. As pointed out in the message from the President, these activities have been widely scattered in the governmental machinery.

The American Medical Association has repeatedly recommended concentration of governmental medical activities under a single administrative agency. The American Medical Association has constantly emphasized the fact that the level of the health of the public is dependent on biologic conditions, i. e. the human body, its functions and diseases, and also on sociological conditions of living, food, housing, sanitation, education and research and available facilities for normal physical and mental development. Physicians are therefore interested in all the divisions discussed in the proposed reorganization.

The American Medical Association has, through its House of Delegates, adopted a National Health Program in which local government agencies, state governmental agencies, the federal government, educational and research institutions and voluntary groups and philanthropic health agencies may cooperate within their proper spheres in striving for a level still higher than our present attainment of the best health in the world.

[A copy of the National Health Program of the American Medical Association was introduced into the record.]

The American Medical Association has been in almost constant contact with most of the governmental agencies having to do with health activities and has cooperated fully within the scope of policies agreed on.

The evident advantages of consolidation of widely scattered activities prompted the Board of Trustees in January 1937 to make the following recommendation:

"The Board of Trustees of the American Medical Association would recommend that such health activities as now exist be so consolidated in a single department, which would not, however, be subservient to any charitable, conservatory or other governmental interest.

"It has been repeatedly said that public health work is the first problem of the state. It is the opinion of the Board of Trustees that health activities of the government, except those concerned with the military establishments, should not be subservient to any other departmental interests. This reorganization and consolidation of medical departments need not, under present circumstances, involve any expansion or extension of governmental health activities but should serve actually to consolidate and thus to eliminate such duplications as exist. It is also the view of the Board of Trustees that the supervision and direction of such medical or health department should be in the hands of a competently trained physician, experienced in executive administration."

The House of Delegates of the Association approved the action of the Board of Trustees. The House of Delegates in 1938 reiterated "its demand for a federal executive department to be designated as the Department of Health, with a doctor of medicine at its head, who shall have general supervision and direction of the affairs of the federal government pertaining to the health of the people."

In 1941 the House of Delegates approved a resolution recommending that the functions of the Children's Bureau of the Department of Labor be transferred to the United States Public Health Service.

In the same session of the House of Delegates a resolution was adopted requesting "the Congress of the United States to create a Department of Public Health, the head of which department shall be a cabinet officer, and to assign to such department all health activities of the federal government." This action was recommended in that it "would result in greater efficiency and in increased benefit to the American people."

In 1945 a resolution before the House of Delegates pointed out that the United States Public Health Service carries out its activities in prevention of disease and protection of the public health through state departments of health and other state agencies. It was stated that the health services now conducted by the Children's Bureau of the Department of Labor parallel, and in many instances overlap, the responsibilities of the Public Health Service and require duplication of district facilities and personnel and a confusing duplication of federal relationship with state health departments and other agencies in the field of public health.

It further stated that "it would be more logical, more effective and more economical to have all public health responsibilities concentrated in one federal agency and establish one direct channel of relationship with state health departments."

The resolution as approved recommended that the health services of the "Children's Bureau of the United States Department of Labor should be transferred to the federal Security Agency until such time as the Congress creates a National Department of Health with a qualified physician as its director, with cabinet status."

The transfer of the vital statistics functions of the Census Bureau to the Federal Security Agency would seem to be logical and make for greater usefulness of that service, as it is of more importance to the agencies of health and welfare than to the Bureau of the Census, to which it is now attached.

The repeated resolutions of the House of Delegates leave no doubt that the medical profession, represented in the American Medical Association, favors the concentration of all medical activities of the federal government in one governmental agency with a qualified doctor of medicine at its head, this administrator to have the general supervision and direction of the affairs of the federal government as they pertain to the public health. The administrator should have cabinet status or, if this is not possible at this time, he should have direct access to the cabinet level and should not be subordinate to another agency. The health of the people is too important in maintaining the "strength of the nation," as it was referred to in the message of the President, to be subject to economic restrictions, administrative limitations or policies developed by other agencies.

With the average life expectancy practically at 65 years, agencies primarily engaged in providing nonmedical benefits, aid and old age insurance will be involved in such enormously large administrative and financial volume that it would be extremely difficult to keep the more individualized problems of health in proper perspective.

The American Medical Association has directed its efforts for nearly one hundred years toward making the best possible medical service available to all the people and cooperates with governmental and other agencies toward that end.

It has been intimated that the proposed changes in organization are planned as the initial step in establishing a regimented, government controlled system of medical care. We are inclined to accredit to this effort the honesty of purpose that has activated the efforts of the American Medical Association in supporting or opposing other legislative proposals.

Should it be apparent that efforts are directed to the establishment of governmental regimentation or measures that would be harmful to the quality of medical care, the American Medical Association will oppose those efforts with all the means at its command.

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## Washington Letter

*(From a Special Correspondent)*

June 17, 1946.

### Graduate Training and Medical Research Center Planned by Army

Major Gen. Norman T. Kirk, surgeon general of the Army, has announced plans for the erection of a vast graduate training and medical research center at Forest Glen, Md. The center will be at National Park College, which served as a convalescent home during the war for Walter Reed hospital patients. A request for funds will be included in the 1947 budget, but as yet no estimate of cost has been announced. General Kirk believes the project will take about twelve years to complete. Tentative plans call for inclusion in the center of a 1,000 bed clinical hospital, the institute of pathology, the Army Medical Museum, institutes of research medicine and dentistry and of research and radiation therapy and a 250,000 volume library. General Kirk has also revealed that the 1,000,000 volume Surgeon General's Library will occupy a building to be started soon near the Capitol. The 1,000 bed hospital and the institute of pathology will be started first. General Kirk made the announcement at a press preview of the exhibit covering all war developments and service, which will be shown in San Francisco at the annual session of the American Medical Association.

### Witnesses Criticize Provisions of Maternal and Child Welfare Act

Witnesses appearing before the House Subcommittee on Aid to the Physically Handicapped criticized provisions of the Maternal and Child Welfare Act. Mrs. Eugene Meyer, wife of the publisher of the Washington *Post*, said the bill would defeat a coordinated national health and welfare program and "cut across" the President's reorganization plan. Dr. Joseph S. Wall, chairman of the medical staff of Children's Hospital, spoke on behalf of the American Academy of Pediatrics and declared that the bill "merits the unanimous disapproval of the medical profession." He said the measure "has the potentiality of wreaking destruction on the teaching and practice of obstetrics and pediatrics and the possible obliteration from the practice of medicine of their adherents, with the consequent evil influence on the welfare of the mothers and the children of our country." Dr. Joseph H. Howard of the American Medical Association said "We do not believe that services and facilities should be available to all who elect to participate regardless of economic status. We do not believe that authority for such a vast program should be vested in the chief of the Children's Bureau, who would have power to veto any state program and cut off federal aid, force adoption of Children's Bureau standards of medical care and administration and establish maximum remuneration for all professional participants. We do not believe that enactment of this bill will improve the quality of maternal care."

### Request for Jury Investigation of Abuse of Veteran Patients

The Veterans Administration and the Department of Justice have asked for a federal grand jury investigation into alleged abuse of patients in three Veterans Administration mental hospitals. United States attorneys have been instructed to proceed with criminal prosecution of attendants at Veterans Administration hospitals in Togus, Maine, Northampton, Mass., and Marion, Ind., accused of brutal and bullying conduct. All cases were first investigated by special undercover agents of the medical department of the Veterans Administration and their reports prompted an appeal to the Department of Justice.

### Sixth Science Bill Introduced in Congress

Representative Wilbur Mills, Democrat of Arkansas, has introduced the sixth bill on scientific research to be presented to Congress, reportedly for the purpose of heading off enactment of the joint Kilgore-Magnuson bill, which was worked out as a compromise after a long trip through Senate committees. The original Science Foundation bill was introduced by Kilgore, and a more conservative measure incorporating ideas of Dr. Vannevar Bush of the office of Scientific Research and Development was submitted by Magnuson. Later they reached a compromise, which was endorsed by five thousand scientists. Slated for consideration in May, the joint measure was sidetracked by strike troubles. The new Mills bill is described as much closer to the original Magnuson bill. It would eliminate research in the social sciences and cut out a provision for appropriating 25 per cent of government funds for research among states, with the cash to be spent in land grant and tax supported colleges. It would also eliminate the proposal that patents developed in government financed research remain the property of the government, available without charge to any one.

### Former Presidential Physician Surveys Mine Health

Rear Admiral Joel T. Boone of the Navy Medical Corps was named by Interior Secretary Krug to direct the survey of hospital, medical, sanitary and housing facilities in the coal mining areas covered by the contract recently granted the United Mine Workers union. Admiral Boone was formerly personal physician to Presidents Harding, Coolidge and Hoover. Under the agreement signed by Mr. Krug as coal administrator and John L. Lewis, chief of the United Mine Workers, a health and welfare fund is to be under the joint direction of the union and the employer.

### Service Hospitals Require Blood for Surgical and Medical Cases

The American Red Cross has announced that service hospitals, particularly the Walter Reed General Hospital, require whole blood for surgical and medical cases. The public is reported to have lost interest in giving blood since the end of the war, which has resulted in a shortage of blood for army and veteran hospitals. An appeal has been issued for donations of blood.

### Veterans Administration Clearing Up Hospital Cases

As an illustration of how the Veterans Administration is speeding up its work, the Washington Regional Office reports that last month all 151 hospital or domiciliary care applica-

tions received were disposed of before May 31. The board had 2,434 disability pension or compensation cases pending at the end of the month, while 19,524 running awards were being made.

### Lieutenant Colonel Frank E. Hamilton Heads Walter Reed Hospital Staff

Brigadier Gen. George C. Beach Jr., commandant of Walter Reed Medical Center, announces that Lieut. Col. Frank E. Hamilton of Columbus, Ohio, has been named chief of staff of Walter Reed General Hospital here, succeeding Col. Reed Bowers of Frederick, Md., who is returning to inactive duty to resume teaching at Cornell University Medical College. Colonel Hamilton is a former assistant professor of surgery at Ohio State University College of Medicine and is a veteran of the Normandy campaign. He comes here from the England General Hospital, Atlantic City.

### Work Started by Hospital Council

The newly formed National Capital Area Hospital Council has started operations with William R. Castle, president of Garfield Hospital, elected president. By-laws have been adopted. Formation of the unit was completed just prior to the final report of the Metropolitan Health Council of the Council of Social Agencies, which reiterated its criticism of Washington hospital facilities.

## Medical Legislation

### STATE LEGISLATION

#### Louisiana

*Bills Introduced.*—H. 614 proposes an appropriation to the department of institutions for the purpose of providing for the care and treatment, in privately owned hospitals, of indigent or destitute sick persons in areas throughout the state wherein no state hospital is maintained or operated for such purpose. S. 162 proposes to require the Louisiana State University to make available medical care and hospitalization to each member of its teaching staff on payment of surgeon's and medicine and hospital fees at the same rate charged to students of said institution. S. 185 is similar to H. 688, previously reported. It proposes to authorize any state board, commission or board of governors to proceed by injunction to enjoin and prohibit any person from the practice of any profession required to be licensed by said board, commission or board of governors when such person is practicing such profession and has not been granted a license. S. 234 is similar to H. 672, previously reported. It proposes to require all persons applying for a license to marry to file a certificate signed by a physician duly licensed to practice by the Louisiana State Board of Medical Examiners, which certificate shall state that the applicant has been given an examination, including a standard serologic test for syphilis, made not more than fifteen days prior to the date of issuance of such license, and that, in the opinion of said physician, the person either is not infected with syphilis or, if so infected, is not in a stage of such disease which is or may become communicable to the marital partner.

*Bills Passed.*—S. 126 passed the senate June 11. It is similar to H. 644, previously reported. To amend the law relating to the practice of pharmacy, it proposes, among other things, to define the term "prescription" as including "orders for a drug or drugs or a chemical or chemicals or medicines or combinations or mixtures thereof transmitted to pharmacists through word of mouth, telephone, telegraph or other means of communication by a duly licensed physician, dentist, veterinarian or other medical practitioner licensed to write prescriptions intended for the treatment or prevention of disease in man or animals, and such prescriptions received by word of mouth, telephone, telegraph or other means of communication shall be recorded in writing by the pharmacist and the record so made by the pharmacist shall constitute the original prescription to be filled by the pharmacist."

#### Massachusetts

*Bills Passed.*—H. 1898 passed the house June 5. It proposes the creation of a board of registration of opticians and defines an optician as "a person engaged in the filling, compounding or reproducing of prescriptions of physicians or optometrists for ophthalmic lenses, eyeglasses or other optical appliances prescribed for the correction of defective vision or ocular anomalies of the human eye, and the mounting and fitting of the same to frames or supporting materials, and the adjusting of such lenses, eyeglasses and appliances to the use of the wearer." Exempted from this proposal would be licensed physicians and optometrists. H. 2001 passed the house June 3. It increases the scope of a special commission investigating certain matters relating to public education, relative to changing the name of the Massachusetts State College to the University of Massachusetts and to establishing a medical school at such institution. H. 2029 passed the house June 5 and the senate June 6. This bill is similar to H. 1899, previously reported. It proposes that any container containing DDT be labeled in certain ways so as to protect the purchaser from being poisoned thereby. S. 259 passed the senate May 20. To amend the law relating to the furnishing of medical care to recipients of old age assistance, it proposes that no board of public welfare or old age assistance bureau shall set a rate of payment for medical services to recipients of old age assistance that is less than the accepted rate for medical services in the community in which the recipient lives, unless the physician is willing to accept a payment for his services less than the accepted rate. S. 533 passed the house June 10. It proposes to provide for a departmental study relative to the regulation of certain hospitals, sanatoriums, convalescent homes and nursing homes by the department of public health.

*Bills Enacted.*—H. 66 has become chapter 51, resolves of 1946. It extends to December 1946 the life of an investigation being made by the department of public health for the purpose of studying the decay of teeth resulting from a lack of fluorine. H. 1317 has become chapter 390 of the Laws of 1946. It provides that all medical records and reports of hospitals, clinics and physicians of either the insurer or the employee shall be filed with the Industrial Accident Board and shall be open to the inspection of any party.

## Medical Economics

### SCHOOLS TO DEBATE MEDICAL CARE PROGRAMS

The Committee on Debate Materials and Interstate Cooperation of the National University Extension Association has just announced that the proposition to be debated in the high schools throughout the country next year has been selected as follows:

*Resolved:* That the federal government should provide a system of complete medical care available to all citizens at public expense.

This proposition was chosen in a nationwide referendum of debating leagues out of more than eighty topics submitted by high school and college students and teachers. The selection was finally narrowed to three topics: Medical Care, Labor Legislation and World Government. Of these three the Medical Care proposition was chosen by a wide margin.

The selection of the Medical Care question as the official proposition for debate next year means that it will be debated and discussed in every state in the Union both by high school and by college students from the public platform as well as over the air. It will be the subject of extensive study by thousands of young people, who will take both the affirmative and negative side of the proposition.

Professor Bower Aly of the University of Missouri has been appointed to edit *Medical Care: The Twentieth Annual Debate Handbook* for the use of students engaged in the debates. The *Debate Handbook* will be available on or about the first of September.

# THE WAGNER-MURRAY-DINGELL BILL

## Hearings on S. 1606—To Provide for a National Health Program

(NOTE.—*This is a condensation of the verbatim report of the hearings.*—ED.)

*(Continued from page 617)*

United States Senate, Committee on Education and Labor.

MAY 2, 1946

THE HONORABLE JAMES E. MURRAY Presiding

PRESENT: Senators Murray, Smith and Donnell.

*(Senator Murray introduced a statement from the California C. I. O. Council about the California Physicians' Service Plan.)*

### Statement of James B. Carey, Secretary-Treasurer, Congress of Industrial Organizations, Accompanied by Robert K. Lamb, Legislative Representative of the United Steel Workers of America

*(Mr. Carey restated most of the points made by the Physicians Forum.)*

MR. CAREY: As your committee appreciates, the testimony we are presenting will be made available to our members, and it is for that reason that we are doubly glad to be able to make the foregoing quotations from the Physicians Forum. We want our members to know that a group of leading physicians agree with us that this legislation is not only desirable in principle but on the whole well drafted to achieve its purposes.

. . . . . .

In the face of the general nationwide demand for passage of this bill, we cannot believe that efforts of certain entrenched individuals at the top of a few organizations can block its passage. The broadcasting of misrepresentations over the last several years has begun to boomerang, and the groups these individuals influence are talking compromise. There should be no compromise short of an adequate federal compulsory health insurance act.

SENATOR DONNELL: Had you personally had anything to do with the preparation of this testimony to be given by Mr. Murray? MR. CAREY: Not in the actual writing, but in the policy determinations, yes. And I participated in the discussions that took place in the policy meetings.

SENATOR DONNELL: Who actually prepared this? MR. CAREY: Mr. Murray, with the assistance of Bob Lamb, who is beside me this morning.

SENATOR DONNELL: Mr. Lamb is an attorney, is he not? MR. LAMB: I am an economist.

*(Senator Donnell questioned Mr. Carey's evidence to support his statement that the American people want S. 1606. Mr. Carey said he based it on the actions of C. I. O. membership.)*

SENATOR DONNELL: Have you taken a poll of the American people? MR. CAREY: May I first finish my answer?

SENATOR DONNELL: On the question of whether or not they believe they can get better medical care under S. 1606? MR. CAREY: Certainly.

SENATOR DONNELL: When did you take that poll? MR. CAREY: In our political action work.

SENATOR DONNELL: That is the Political Action Committee? MR. CAREY: That is our political action work, Senator.

SENATOR DONNELL: That is the Political Action Committee of the C. I. O.? MR. CAREY: That is a small part of our political action work, Senator.

*(Senator Donnell continued to question about a poll, and Mr. Carey continued to evade the answer.)*

SENATOR DONNELL: Mr. Carey, I think perhaps now the meaning of this question is at least permeating your brain. The question I am asking you is, have you taken a poll, p-o-l-l, poll. Have you taken a poll of the people of the United States on this question? MR. CAREY: Yes, sir.

SENATOR DONNELL: When did you take it? MR. CAREY: We take it constantly, day in and day out, through the channels of our organization.

SENATOR DONNELL: Have you sent out any questionnaire of any kind? MR. CAREY: Now you are getting down to something.

SENATOR DONNELL: You did not have any idea of what I meant? Is this the first time you had any idea of what I meant? MR. CAREY: Is that your definition of a poll, Senator?

SENATOR DONNELL: Mr. Carey— MR. CAREY: You asked me a question. I asked you to define what you said.

SENATOR DONNELL: I will put my question— MR. CAREY: You know that Gallup takes a poll and Crosley takes a poll. The C. I. O. has no poll of that type. As to your questioning my credentials representing the C. I. O., I say we know the thinking of our people that authorized us to support this legislation.

SENATOR DONNELL: I want to say this, Mr. Carey: You may have credentials. I do not know what they are or what is their nature, but I want to say to you, you do not have any credential to act for me, and I am one of the members of the American people. MR. CAREY: Are you a member of the C. I. O.?

SENATOR DONNELL: I am not. MR. CAREY: I will modify my testimony.

SENATOR DONNELL: Just a minute. MR. CAREY: And I will say that the American people, with the exception of one, single, solitary Senator, wants better medical care.

SENATOR DONNELL: That is not the question I asked you. Of course, I want better medical care. MR. CAREY: Senator, you do not happen to be the American people.

SENATOR DONNELL: I think I am one of them. MR. CAREY: You are no more the American people than I am.

SENATOR DONNELL: I want to say to you, Mr. Carey, that my question is perfectly simple, and you have understood it all along: Have you sent out a questionnaire? If you cannot understand the meaning of the word "poll," have you sent out a questionnaire to the American people, as such, to ascertain whether or not they believe they can get better medical care under S. 1606? Have you sent it out? MR. CAREY: May I—

SENATOR DONNELL: Have you sent out such a questionnaire? Just answer that question, please, sir? MR. CAREY: Are you trying to harass me, Senator?

SENATOR DONNELL: I am asking a question. MR. CAREY: Are you trying to frighten me?

SENATOR MURRAY: Gentlemen, I do not think we are making any progress here.

SENATOR DONNELL: Apparently not.

*(Senator Donnell continued to question and Mr. Carey continued evasively.)*

MR. LAMB: I am legislative representative for the United Steel Workers of America, of which Mr. Philip Murray is president.

SENATOR DONNELL: Were you with a government department before you worked for the C. I. O.? MR. LAMB: I worked for the Senate and the House of Representatives, but I never worked for an executive agency of the government.

SENATOR DONNELL: You worked for the Senate and the House of Representatives, and now you are a member of the C. I. O.? MR. LAMB: That is right.

*(Senator Donnell questioned Mr. Lamb about voluntary insurance plans.)*

MR. LAMB: Well, Senator, the two outstanding ones of which I have any knowledge are the California Physicians Service and then one in Michigan, and I do not profess to know much about the one in Michigan. As to the general coverage: that is to say, the 5 million or so, and perhaps it is as high as 7,

as I understand it, the state and local medical societies are responsible for about one million and between five and eight hundred thousand at the present time of the people covered.

SENATOR DONNELL: Yes? MR. LAMB: Under special plans, as I am describing, and that includes, I believe, the California Physicians Service.

SENATOR DONNELL: Very well. May I ask you this: Do you know whether or not the California Physicians Service recently entered into an arrangement, whether final or not I am not informed, with the Grange, whereby approximately 100,000 members of the Grange are to come in under the operation of that plan? Do you know whether or not that has been tentatively or perhaps finally arranged? MR. LAMB: I do not know, sir.

*(Senator Donnell questioned Mr. Carey on the provisions of the bill relating to the advisory council and free choice of physicians and specialists.)*

*(Senator Donnell also questioned Mr. Carey and Mr. Lamb on the cost of operation of S. 1606.)*

*(Senator Donnell questioned Mr. Carey about the Physicians Forum. The only one he knew was Dr. Boas.)*

*(Mr. Carey indicated his belief that doctors have been misled about S. 1606 and said that he felt eventually they would come to support it.)*

SENATOR DONNELL: May I ask you this: This is a matter of curiosity, which perhaps has no bearing on the bill. Does the C. I. O. have not only organizations among government workers, federal government workers, but does it also have them among state government workers? MR. CAREY: Yes, sir.

SENATOR DONNELL: And does it also have them in some of the banks of the country? MR. CAREY: Yes, sir.

SENATOR DONNELL: You have local C. I. O. organizations in banks? MR. CAREY: We have now an international union covering public employees, federal, state, city, county and so forth. We have the organization of the United Office and Professional Workers, which covers white collar workers in that particular field. That includes bank clerks and others.

SENATOR DONNELL: You conclude your statement with a paragraph the second sentence of which reads "The sums now spent annually for the medical care of the American people today would amply cover the benefits provided in this bill." Who is it that has made the requisite computations on which that statement was based in your organization? MR. CAREY: We sought information regarding the present health bill of the system, and the services rendered and the payment of that amount of money. We also compared with that the cost of the operations under the principles contained in this bill, if enacted, the estimated costs; and we find that the people of this country will be eligible for greater benefits with less money than they are at the present time.

SENATOR SMITH: Do you think there is any country that provides medical service comparable to the medical service that we give to the people in this country? MR. CAREY: There is no country in the world that can compare with this country in any of these questions, whether it is housing or clothing or medical care, or whether it be education or production or any of those other features. But I do not think any other country in the world makes expenditures in this field of health to the extent of our own country, and no other country, to my knowledge, wastes so much in failing to bring about a better relationship between doctor and patient.

SENATOR SMITH: That of course is a matter of opinion. We can be dogmatic in drawing such a conclusion. MR. CAREY: I would think that the experiences we have had in these important fields such as education and health could well be used, and that is where we get our experience, and that is why we so vigorously support this bill. We recognize it as a present step in the right direction. There can be no question anywhere in the world but that under our system of government and the flexibility we have in meeting the problems of the people we can do this job. I would have liked to use in the testimony some of the information that was brought about as a result of our participation in the last war, the great number of rejects, the tremendous costs. I would not attempt to measure what the price was in terms of life or even in dollars, but certainly there is indication here that we do not have as good a balance as we could have. Some areas are more depressed than others in terms of having medical care available to the people.

SENATOR SMITH: Your conclusion is that you think we can do it better by centralized experiments than by continuing our state experiments, as we have during the years, and decentralizing our operations. MR. CAREY: I would say the system suggested here as to the overall policies is the only thing that is actually determined by the federal government.

SENATOR SMITH: And you do not take cognizance of the experiment in Minnesota, which I am told has made great progress, and the experiment in California; a system whereby we are getting combined judgment of different areas trying different things to move toward perfection as fast as we can. Is that not the best way to do it? MR. CAREY: That is the best way to gain experience, and as a result of that experience in the systems we have had operating, such as that in St. Louis operating under the direction of the labor organizations, the people have better medical services now than they had before. But still we think that experience itself is good argument in support of Senate bill 1606.

SENATOR SMITH: So you think we have got to the end of the experimental stage. We have got to perfection now, and we can write the blueprint here in the central government rather than encourage these different states and medical societies and boards of health to go on trying to perfect it in their own areas? MR. CAREY: The enactment of this bill would in no way put a stop to experimentation and further development.

SENATOR SMITH: That is where I disagree with you. MR. CAREY: Senator, I would say, if we refused to enact this legislation, that in itself would be an indication that we believe the present situation is a perfect one.

SENATOR SMITH: Let me correct you on that. As to my thinking along the line of grants-in-aid to your states, I am for that. I think the first part of this bill contemplating grants-in-aid proceeds along the right line. I would like to see it perfected in certain respects. But when you get into part 2 you are in a totally different philosophy, and that is where I have difficulty in following you. But I am glad to hear you say that that is your opinion. We want to get the opinion of the C. I. O. MR. CAREY: The American Medical Association and others operate on that central basis, as we do, because they find in many cases you can best render service in that way.

SENATOR SMITH: It is a matter of degree how far you can decentralize administrative powers. To my mind that is the issue we have here; that of determining the right kind of a bill to report out.

MR. LAMB: I would like to refer Senator Smith to the letter which Mr. Carey put into the record, because I recognize it as being a copy of one I have here which came to us a day or so ago from the secretary-treasurer of the California C. I. O. council, in which he has reference to the California Physicians Service, and he has this to say with respect to their experience. And our California C. I. O., as you know, has been among the pioneers in the C. I. O. in its interest in medical care; our California C. I. O. and the American Federation of Labor out there have worked together in the recent past on this. He says: "The C. I. O. in California has had considerable experience with voluntary plans. We have studied with particular care the statewide plan of the doctors, California Physicians Service. We are completely convinced that this type of plan can never bring good medical care to those who need it most, the middle and lower income groups. I am listing below the principal reasons which have led us to this conclusion. Many of these faults are inherent in all voluntary plans." Of course, this does not have reference to the state plans, but to the California Physicians Service, which I believe you mentioned a moment ago, which has been in force for some time.

SENATOR SMITH: I mentioned it, Mr. Lamb, as one of the experiments which is going on today. I would have no objection if some state wanted to try a compulsory plan to see whether it would work better than the voluntary plan.

MR. LAMB: I would like to list these points first, Senator:

1. C. P. S. costs too much for the service given. Administrative and acquisition costs are very high and are not subject to control by the membership or any public body. The tremendous turnover in voluntary membership destroys the actuarial integrity of the plan. The cost of selling the plan is tremendous. These two factors negate the advantage of the insurance principle of spreading the risk. According to C. P. S. figures, in the months of October and November a total of 27,489 new members were acquired. The net gain in membership, however, was only 2,349.

2. The coverage is too limited. C. P. S. offers only surgical and hospital coverage to the majority of members. Medical care is not offered to families. The day to day medical and dental expenses of the average family are not met. Many members of C. P. S. report annual medical expenses of hundreds of dollars despite their C. P. S. coverage. Preventive medicine has not any part in the C. P. S. plan.

3. The quality of care is poor. C. P. S. physicians tend to treat C. P. S. patients with less care than private ones. C. P. S. is totally unable to control professional standards and practices of its physicians. In the C. P. S. housing projects program, completely controlled by the doctors, the average quality of care was so poor as to be scandalous. The large turnover in membership is largely due to dissatisfaction with the service.

4. C. P. S. cannot control overcharges by member physicians. These doctors are not satisfied with C. P. S. fees and attempt to collect additional fees from the patient. Hundreds of complaints on this score have reached us from members of the C. P. S.

5. C. P. S. does not encourage the growth of group practice. The benefits of pooling skills, reducing costs, etc., which make a group practice desirable, are lost to C. P. S. members.

6. C. P. S. does not seek bona fide consumer representation on its controlling board. The plan is completely dominated by physicians. Members have nothing to say about dues, medical coverage or administration. C. P. S. seeks to perform a vital public function, while controlled by a very small minority, the physicians. Unlike a government body, C. P. S. has no responsibility to the people and cannot be controlled by them.

7. C. P. S. has not shown good faith in an honest attempt to devise means to make medical care available to all. It is openly admitted by the California Medical Association that C. P. S. was created and is maintained in an attempt to prevent the enactment of health insurance legislation. This very attempt is proof that the physicians are aware of the need for health insurance and the desire of the people to have it.

8. C. P. S. failed utterly to prove its soundness in the largest mass attempt to provide care on a prepaid basis. In the housing project program C. P. S. demonstrated that voluntary enrolments are doomed to failure. C. P. S. and the California Medical Association officially demanded of the government that membership of public housing tenants in C. P. S. be made compulsory. Their contention was that only thus would the plan succeed.

SENATOR SMITH: If I may just suggest this, at that point: I see those defects, but I am not convinced that the plan which you are advocating here, S. 1606, would cure those defects better than if we did try to experiment with those things as we met them in different parts of the country

SENATOR MURRAY: We may concede that the states have rights and will continue to have them, but I think too that a program of this kind can be more effectively administered under a national law. We find often that, while states have rights, they do not always exercise them in the interest and welfare of the people. For instance, states have rights to set up utility commissions to control utilities in various states of the Union, and yet, because of the power and influence of the interests in those states, those rights are not honestly and fairly administered in the welfare of the people. So it seems to me that we should not brag too much about states' rights, because they have not always been administered in the interests of the welfare of the people.

SENATOR DONNELL: I want to place myself on record as recognizing and thoroughly rejoicing in the fact that we do have states' rights under the Constitution of the United States and the Tenth Amendment thereto.

SENATOR SMITH: Mr. Chairman, I think we have expressed a difference in philosophy here that is legitimate as a part of this whole question: Can this best be done through federal control or through decentralization to the states? If we differ on that, I want to say that I appreciate Mr. Carey's testimony and that of Mr. Lamb. I have had contact with Mr. Lamb before, and I have the highest regard for him in the work he is doing for his cause. I disagree with him but respect his judgment.

SENATOR MURRAY: I think such discussions will be helpful in studying this question when we go into executive sessions.

SENATOR PEPPER: This bill, owing to the fact that the Senate cannot initiate tax measures, contemplates the plan assuming the existence of the money; but I think everybody has contemplated that a payroll tax is the basic method by which the funds that will provide this in an insurance shall be provided.

SENATOR SMITH: It is your theory, then, that there would be such legislation? SENATOR PEPPER: Yes, I have always understood that this bill is generally predicated on there being a payroll tax of 1.5 per cent required to be paid by the employees and 1.5 per cent being required to be paid by the employer, which would be analogous to the payroll tax which is today collected of employer and employee to provide for a national fund.

SENATOR DONNELL: Does the Senator understand that it is contemplated that this 1.5 per cent on the employer and employee would pay all the expenses of the fund or that there would be a federal subsidy in addition? SENATOR PEPPER: Senator, the only way we could answer that would be by experience. It might be that with this fund the preventive health services, the general health care that might become available, the clinical diagnosis that might become possible for people so that illness might be nipped at its beginning or may be prevented from beginning, might so reduce the medical bill of the country that 1.5 per cent by employer and employee would prove to be enough. If it were not enough we in the Congress would have to decide whether we would wish to raise the amount of the payroll tax or make up the difference by a federal subsidy. That is just a mere matter of policy. But what I wanted to emphasize is this: We all have good doctor friends whom we highly respect and admire, whose professional skill we esteem. Some people seem to take this bill and our advocacy of it as a personal affront to them, as a sort of trespass on their prerogatives, an invasion of their sacred precincts. Now, what I have been trying to get into my mind is the essential and basic character of this bill. What I am asking you is: Do you people not regard that it will do if it is financed as I have said, by the sort of payroll tax I have described, as a national compulsory insurance program whereby the people may, with one another, provide funds through which they may procure medical services. And is it not essentially a tax and compulsory insurance program? MR. CAREY: I stated that in my testimony, Senator.

(*Senator Pepper by his questions indicated that the people would be taxed compulsorily but that doctors could participate voluntarily.*)

SENATOR SMITH: May I ask you a question there with relation to your observation? Supposing you put through the compulsory plan and then are short on doctors, what is your solution? How are we going to handle that? SENATOR PEPPER: There are two answers, Senator. One is that this bill encourages the training of more doctors.

SENATOR SMITH: That is very worthy. SENATOR PEPPER: Right, that is very worthy. In the second place, do you not think that if doctors have an opportunity for a fair fee under favorable surroundings, such as adequate equipment and assistance and that sort of thing, and to render a good quality of medical care: do you not think, with regard to the law of demand and the desire to make money as well as to render humanitarian service, that is going to provide the doctors needed? SENATOR SMITH: I think so, but I think that comes back to the point you made: I think unless you have the profession with you, you will not get the cooperation you need.

SENATOR PEPPER: I am only asking the question, Senator, as to whether when the burden of this thing is to be paid for by the people, and the people are the ones whose lives and whose health and whose dear ones are involved, and when the people feel that they want to pay this money, whether we ought to let a little handful of doctors who are not directly affected deter us from serving the people or permitting them to save and to serve themselves? SENATOR SMITH: This is where I disagree with you on your thesis. Assuming you are going to have the doctors available to handle this matter that you have persuaded the people to pay for?

SENATOR PEPPER: Well, is it the case that these doctors are going to refuse to render medical service to the people when they are paid for it; that they are going to strike? SENATOR SMITH: I think they are going to suggest it can be worked out through your state boards more effectively than through a federal plan. That comes back to the basic philosophy. I am just raising some of the difficulties I see, and I think you will agree there are difficulties.

SENATOR MURRAY: There is one organization of doctors who have had a representative here before the hearing a short time ago, who had as one of their objects the idea of organizing the doctors not to enter this system. In other words, they are proposing a sitdown strike on the part of the medical profession against the effect of enforcement of this law in case it becomes a law. I do not know whether they will abandon that idea or not, but they have sent out literature

to that effect, and the doctors that are joining that organization are joining it with the understanding that that is one of the objects that they have in view.

SENATOR PEPPER: Mr. Chairman, lest some one might misunderstand my attitude, I want to say that I do not have the slightest idea that a handful of doctors in this country would ever think of doing such a thing as that. There may be a few people that are excited now, whose emotions are stirred up now, who are deeply moved by this matter; largely because they misunderstood it.

SENATOR MURRAY: I think it is largely misunderstanding.

SENATOR PEPPER: Right. They have been made to misunderstand it, most of them. I do not have the slightest misgiving about the doctors giving hearty cooperation, and what will happen is that once we get this thing under way administratively there will be difficulties that will develop, and when we pass this bill we may find there are things which should not have been put in there. But experience will teach us how we can perfect the bill. You need have no worry about what will happen. As we go along we will learn, and the doctors will become our counselors; you mean ours, but they will become the counsel of the administrative agencies that are running it. In a little while you could not any more repeal it, once it becomes law, than you could repeal the Unemployment Compensation Law or the Social Security Law or any other.

SENATOR MURRAY: I think that is a correct statement. Mr. William Green of the American Federation of Labor testified a short while ago, and he called attention to the Workmen's compensation law, which was bitterly fought by the medical profession at the time it was proposed, and they argued then that that would destroy the medical profession. But since that time they have come to recognize the value of that law and now would not think of recommending its repeal.

SENATOR DONNELL: Mr. Chairman, it was mentioned by Senator Pepper that this bill does not require physicians to come in under it. I think that is quite true. I want to mention this, however: that obviously in order that this plan may succeed it would be essential that the great majority of the physicians in our country did come under it. Therefore, we are going to be, as a practical matter, confronted with the situation that if the people that pay in these taxes are to get their money's worth out of it, the great majority of the doctors must come in—I do not mean legally; they are not compelled to legally—and then we are going to be confronted with the economic question which worries many people: as to whether the great majority of the profession that will come in under this system will discourage personal advancement and initiative or whether it will bring about deterioration of service. I think all of those problems are involved. I take it this is not the time and place to argue those questions, but that is involved.

### Statement of Martin H. Miller, National Legislative Representative, Brotherhood of Railroad Trainmen

I am Martin H. Miller, National Legislative Representative of the Brotherhood of Railroad Trainmen.

MR. MILLER: The Brotherhood of Railroad Trainmen is the largest of the railroad train service labor organizations and represents conductors and brakemen, road, passenger, freight and yard—train baggagemen, yardmasters, dining car stewards, switchtenders, car retarder operators and operators of intercity busses.

*(Mr. Miller described the development of the health plan of the brotherhood.)*

SENATOR MURRAY: Well, now, you will notice that this is a very extensive piece of legislation and has many provisions in it. Are you able to analyze these and discuss them or do you wish merely to confine your testimony to the overall problem of the need of the National Health System to provide better care, better medical care for the people of this country on a reasonable cost? MR. MILLER: Senator, I am not prepared to go into detailed discussion as to the several provisions in the bill. In preparing my statement I prepared it generally.

*(Mr. Miller, in reply to Senator Donnell, felt that government should provide food, full employment, etc.)*

SENATOR MURRAY: Now, with reference to this problem of food: you do not mean that the obligation is on the government to furnish everybody directly with food, but your idea is that with reference to the children who are unable or whose parents are unable to feed them properly in the tender years when they are going to school the government should provide some plan for additional feeding for them in the schools? MR. MILLER: That is right. Certainly.

SENATOR MURRAY: In reference to this health program, you believe also that people should be required to pay for medical care and hospitalization when they are able to do it, but it should be supplied to them at reasonable cost so that they may be able to avail themselves of it without too much hardship? MR. MILLER: That is correct. Certainly.

SENATOR DONNELL: Mr. Miller, so that I understand just your theory in view of the examination by the chairman, this matter of full employment: it was the President's program with respect to full employment that you feel Congress responded to in a very feeble way? MR. MILLER: That is right.

SENATOR DONNELL: Do you personally favor the government guaranteeing to each person in the country that if that person desires to work he shall have a job or, failing a job, shall be paid some type of unemployment compensation by the government? Is that your position? MR. MILLER: Yes. Definitely. I think that each individual has a right to live.

SENATOR DONNELL: And you feel that that is a governmental obligation, as I have outlined, either to furnish the person with a job or give him unemployment compensation if the job is not at hand? MR. MILLER: I would say it just a little differently. That it would so direct the economy of the country that work—either private or government work—would be available, or, in the absence of both, then unemployment compensation to tide them over.

SENATOR DONNELL: And you think that should be a national function emanating from the national government? MR. MILLER: Well, naturally, I would think it should be a national function. We found out on the railroads that you just could not operate the state unemployment laws to take care of railroad employees adequately. You see, members of the Brotherhood of Railroad Trainmen oftentimes run into and through four states.

SENATOR DONNELL: Yes? MR. MILLER: In the course of their tour of duty, so you see you just cannot recognize those imaginary state lines, because they cross them. The same thing is true of highway workers. It is true of operators of airplanes; and we just have some places that we cannot recognize state lines.

SENATOR DONNELL: So you feel that this is a federal governmental function? MR. MILLER: Yes, I think it is a federal responsibility.

SENATOR DONNELL: Yes? And in this matter of insufficient food, the chairman, Chairman Murray, mentioned food in the schools. Now, if a child should not have sufficient food in his home, as distinguished from the school, because he does not do nearly all of his eating at school, if he did not have sufficient food in his home, would you advocate that the government should see that food should be provided to him in his home? MR. MILLER: I think it is an obligation of the government to see that that child grows up to be a normal human being, just as mentioned in the President's state of the Union message, and, as we all know, it proved to be costly to the federal government to have so many millions of young men rejected, and it certainly becomes an obligation of the federal government, because, after all, the federal government, when it leans back on the people in national defense, if it does not have healthy people it does not have much to lean back on.

SENATOR DONNELL: So you regard it as an obligation of the federal government to see that the child is sufficiently fed to grow up to be a useful citizen of the country? MR. MILLER: That is right.

SENATOR DONNELL: And if that food is not furnished at home or in school or wherever it may be, you feel it is the obligation of the federal government to see that the food is furnished? MR. MILLER: That the child grows up to be a normal, healthy human being.

### Statement of Edward F. Poss, Grand Worthy President, Fraternal Order of Eagles

*(Mr. Poss said the Eagles had always favored a complete security program.)*

MR. POSS: In making an alternative suggestion to federalized prepayment of medical care, I am not labeling the method proposed in Senate bill 1606 as "socialized medicine." For years local lodges of the Fraternal Order of Eagles have provided free medical services to members and their families, just as many industrial establishments now do.

Some Eagle aeries have maintained a panel of prepaid physicians for over forty years. Many Eagles have received medical

attention for themselves, their wives and youngsters, that otherwise they might not have had or been able to afford. But we would have to admit that, even when there is a panel of several outstanding medical men in the community serving the local aerie, a majority of our members in any lodge seemed to prefer to have their own family doctor. They may be the better off members, from a financial or income standpoint, but the idea of selecting their own doctor and themselves paying for his services appeals to them.

Insurance, social or private, to an average American, still means reimbursement for a loss or expense, protection against an uneven and unpredictable risk.

In asking amendment of Senate bill 1606 to provide some alternative method of cushioning the economic shock of paying for needed preventive and curative services and hospital care, we are not placing our reliance on voluntary systems. They are fine. But those who need them least are most likely to take out the policies. Those who need the protection most are the least likely to have it.

SENATOR DONNELL: In what respects do you think that this bill, S. 1606, should be amended so as to guarantee the independence of the medical profession? MR. POSS: Well, in the opinion of the Fraternal Order of Eagles, and mine, I feel that the average independence of the man is in knowing that he can pay his own bill. In other words, that the money should be paid to the insured policyholder. For instance, if I carry a sickness and accident insurance policy the check is sent to me. It is not sent to the doctor. Then I pay the doctor. We feel that in order to make any bill work, especially this particular type of bill, you must have a cooperative feeling and a spirit on the part of the doctors, and by placing him directly or indirectly on the federal payroll you eliminate his independence. SENATOR DONNELL: You think the bill should be amended? MR. POSS: That is right. In the opinion of the Eagles, we feel that the money should be paid to the man who is sick, he, in turn, to pay the doctor.

SENATOR MURRAY: Well, let me ask you there How would that have the effect of guaranteeing the independence of the physician? MR. POSS: Well, Senator Murray, in that case the man who is ill is going to receive the check, and he could choose any doctor out of the 5,000 or 6,000 we have in Toledo. I have learned, down through the years, that when we have doctors in our home it is a pretty sacred thing, with a child and a wife. We have pretty close association with the family doctor.

SENATOR MURRAY: But this bill provides, in every community where it is put into operation, a panel of the physicians and surgeons who agree to come under the plan and who will have their names listed; then the people in the community would have the right to elect to go under the care of any member of that panel. MR. POSS: That is right.

SENATOR MURRAY: And when he becomes sick, it provides that the doctor that he selects will take care of him and he will be paid out of the fund. A fund will be created and set aside out of the wages of the workers and sent in to a separate fund, and out of that fund the doctor will be paid. Now, if you require that fund to pay it to the individual, and then the individual to pay it to the doctor, you are going to create a lot of more bookkeeping, which does not serve any purpose, as far as I am able to see. MR. POSS: Well, of course, that is a debatable question.

SENATOR DONNELL: You say on page 5 "but I doubt that the average Eagle or average American is equally enthusiastic about having doctors and nurses become direct or indirect federal employees, paid by the government." I understand from that that your interpretation, whether it is correct or not, your interpretation of this bill as it is now written is that inasmuch as the money is collected and the person goes to the panel and gets the doctor and the government pays the doctor, your interpretation is, either directly or indirectly, that these doctors and nurses are federal employees. MR. POSS: That is correct.

SENATOR DONNELL: And you think the bill S. 1606 should be remedied and amended so that the payments should be made direct to the patient, and then the patient go and select whatever doctor he or she may want. That is your thought? MR. POSS: That is my thought.

SENATOR MURRAY: Regardless of what his fees would be? MR. POSS: I am wondering if we can place a price on our responsibility to our fellow men.

MAY 3 AND 4, 1946

HONORABLE JAMES E. MURRAY Presiding

PRESENT: Senators Murray, Ellender and Donnell.

### Statement of General Omar N. Bradley, Administrator, Veterans' Affairs

GENERAL BRADLEY: The bill imposes no duties on the Veterans Administration. Therefore I think I can be more helpful to the committee by outlining the program and experience of the Veterans Administration in the field of medical care. Veterans have reason to take pride in the hospital program established for them. While the proposals contained in S. 1606 would not appear to be designed to impair in any way the hospitalization benefits now administered by the Veterans Administration, I wish to state clearly that in my opinion it is important that nothing be done which will impair it. I also believe that this veterans' benefit should continue to be under the exclusive jurisdiction of the Veterans Administration.

The bill does not specify any particular method of financing the program. By use of the term "prepaid personal health service benefits" it would appear that contribution by the employed person is anticipated. This would require the veteran to contribute toward a benefit to which he is already entitled, without charge, under existing law, in that he is entitled without cost to himself to hospital or outpatient treatment of service connected disability and to hospital treatment of non-service connected disability when bed is available. This effect, bearing in mind possible impairment of the existing program, should be considered carefully at such time as the financing procedures are worked out.

In passing it is noted also that the bill would limit the period of hospitalization, whereas under the laws administered by the Veterans Administration there is no such limitation. The period of hospitalization is determined by application of medical principles.

Since March 3, 1919, when the acquisition of government hospitals was first authorized for the treatment of veterans of World War I, to Dec. 31, 1945 there have been 3,315,780 admissions to hospitals of United States veterans. The average period of hospitalization for a general medical and surgical patient was 38.6 days, for a tuberculous patient 173.9 days, for a neuropsychiatric patient 54.7 days, for a psychiatric or mental patient 370.4 days. During March 1946, 54,464 applications for hospital or domiciliary care were received. The total number of patients remaining in all hospitals the last Thursday of March was 84,730.

As of March 31, 1946 the Veterans Administration had 101 hospitals. There is a Veterans Administration hospital in every state in the Union except three—New Hampshire, Rhode Island and Delaware. The construction of hospitals in each of these three states has been authorized.

By the enactment of Public Law 293, 79th Congress, approved Jan. 3, 1946, the Congress authorized the establishment of a Department of Medicine and Surgery in the Veterans Administration. With the authority of this law we have made a complete and drastic reorganization of the Veterans Administration medical service. The selection of personnel to staff Veterans Administration hospitals has been greatly expedited and the medical service is attracting outstanding specialists and medical personnel of the highest quality.

The Veterans Administration is currently authorized to spend over 400 million dollars in the next two years in hospital construction. The vastness of this program is understood more readily when it is stated that more money will be spent for veterans' hospital construction in the next two years than was spent in the entire preceding twenty-six years. In connection with the hospital construction program of the Veterans Administration I wish to refer to the problem of staffing our hospitals. A hospital without a staff obviously is utterly worthless. In order to secure suitable professional personnel to staff a hospital, a general medical hospital must present a sufficient variety of problems in medical treatment to attract the best quality of medical personnel and to interest younger medical personnel. For this, among other reasons, the program of medical care for non-service connected disabilities is an important factor in the Veterans Administration hospital program. Furthermore, a medical staff must be maintained to the highest efficiency, and in the maintenance of high professional efficiency the variety of disabilities among the patients is again an essential factor.

The Department of Medicine and Surgery in the Veterans Administration is initiating new and greatly expanded programs. Arrangements have been made with medical and research centers to provide the Veterans Administration with

consultants, visiting staffs and residents in hospitals located near these centers. A staff of nationally known specialists has been appointed to serve as Veterans' Administration consultants. A special program has been instituted for the rehabilitation of blind veterans and for those with impaired hearing. An extensive program of research in prosthetic appliances is under way. A committee of outstanding citizens has been appointed to advise the staff personnel in charge of this program, and it is expected that the Veterans Administration will soon assume leadership in this highly important field.

The Veterans Administration is giving serious thought to the care and rehabilitation of veterans with neuropsychiatric and mental disabilities. It is planned to bring nationally and internationally known psychiatrists into Veterans Administration neuropsychiatric hospitals on temporary duty. As most of the Veterans Administration neuropsychiatric hospitals are remote for medical schools, it is proposed to obtain outstanding psychiatrists for a few days or a week at a time who will lecture to the hospital staff and bring members of the staff up to date in the latest developments in the field. As an extension of the Veterans Administration program of outpatient care, mental clinics are being established throughout the country. Sixteen have already been organized, thirty-two have been authorized, and plans are under way for the eventual establishment of two hundred mental hygiene clinics.

It is noted that S. 1606 makes provision for medical research. The Veterans Administration is also interested in developing an extensive research program. As an agency which has access to the health records of millions of veterans over a long period of years, it should be able to render great service in the field of medical research. The Tumor Research Unit at the Edward Hines Junior Memorial Hospital, Hines, Ill., has made elaborate studies in this field and has some of the finest equipment in the world.

In view of the large number of troops stationed in tropical areas, special research is being done in tropical diseases. Centers for this purpose have been established in the Bronx, New York; Biloxi, Miss.; San Francisco, and Washington, D. C. A system of resident training is being instituted which, together with plans for graduate work and special training for members of the staff, will greatly increase the proficiency of the staff.

In passing I may say that the program of education and vocational rehabilitation authorized by Public Laws 16 and 346, 78th Congress, will enable veterans who desire to enter the medical profession to take such training at government expense.

Another part of the Veterans Administration medical program has to do with outpatient treatment. The law provides that veterans with service connected disabilities shall be given outpatient treatment for such disabilities. During February 1946 outpatient medical care was provided 152,381 persons. Of this number 62,107 received treatment and 90,274 were examined. It became clear that new measures must be resorted to if the demand for outpatient treatment and examination was to be handled adequately. The Veterans Administration therefore has developed a plan whereby contractual agreements may be entered into through the cooperation of state medical societies for services of physician members to furnish medical care on a fee basis.

I will refer only briefly to the domiciliary care afforded by the Veterans Administration. To be eligible for admission to a home, in addition to other requirements unnecessary to mention here, a veteran must be suffering with a permanent disability, tuberculosis or neuropsychiatric ailment, be incapacitated from earning a living, and have no adequate means of support. This benefit will become more important as veterans become older, and undoubtedly it will be in the future, as it has been in the past, a refuge for many veterans in periods of economic distress. On June 30, 1945 there were 8,779 veterans in domiciliary status. Of this number 4.10 per cent were veterans of World War II. As of March 28, 1946 there were 11,682 veterans receiving domiciliary care.

The program of medical care administered by the Veterans Administration is designed for a special group of citizens and is subject to certain specific limitations. I feel that it is a program in which the country takes great pride and one that has been beneficial to all the people of the country, as veterans form a considerable portion of the population. Great progress is being made in improving medical service extended to veterans, and the American people can well take satisfaction in this program.

SENATOR MURRAY: I believe that you know that the President recently sent a letter to me in connection with this matter. I think it would be appropriate for me to read it at this time; it is as follows:

Dear Senator Murray:

It has been most gratifying to observe the deep interest displayed and the progress made by the Senate Education and Labor Committee under your chairmanship in the conduct of the hearings on S. 1606, the bill designed to give legislative effect to a large part of the national health message which I submitted to the Congress on Nov. 9, 1945.

In providing generally for medical and hospital services under S. 1606, it is intended that these most essential and valuable benefits be within the reach of those persons who are not eligible for medical and hospital services under existing laws and be afforded to some persons already eligible therefor, in whole or in part, who for various practical reasons do not have such services made readily available. The latter aspect of the program is deserving of special attention to remove any doubts as to the real effects intended by the proposed legislation.

It is not intended that existing programs of medical and hospital services are to be supplanted. For example, it is not intended that our obligations to veterans for medical and hospital care shall be changed or impaired in either service connected or non-service connected cases. The special provisions for veterans under laws administered by the Veterans Administration reflect our nation's gratitude for their services, and I urge that when the bill emerges from your committee it provide in explicit terms for the preservation of medical and hospital services under laws administered by the Veterans Administration.

A national health program such as I have recommended, and as envisaged in S. 1606, would make it possible for persons to get complete medical and hospital services locally. As to veterans, the program would merely provide additional means of securing medical and hospital care. Veterans with non-service connected disability, in common with others, would become entitled to outpatient treatment. As to persons eligible under other laws, particularly veterans, the program under S. 1606 would include the families of such persons for complete medical and hospital services which benefit is not now available to them.

I have conferred with the administrator of veterans' affairs and the federal security administrator and they share in my convictions.

HARRY TRUMAN,
President of the United States.

In view of that recommendation on the part of the President, could you propose to us some amendment which would make it possible to achieve the purpose that the President has in mind there in protecting the veterans' program? GENERAL BRADLEY: We have not one prepared at this time. We will work on it.

SENATOR MURRAY: Now, under the existing conditions, it is not possible for the Veterans Administration to provide medical care adequately for the veterans all over the country, is it? GENERAL BRADLEY: We are able to take care of all service connected cases and a limited number of non-service connected cases. At present about 85 per cent of those in general medical and surgical hospitals are non-service connected and about 15 per cent are service connected. We have a waiting list at the present time of approximately 26,000, I believe.

SENATOR MURRAY: So that a national program of health care in the country which would be open to the veterans and to their families would be a great help? GENERAL BRADLEY: It would certainly furnish an additional means of veterans getting medical service.

SENATOR MURRAY: And the important matter would be to prevent it from supplanting or in any manner interfering with the existing veterans' program? GENERAL BRADLEY: Yes, sir. The point we are trying to make here is, at the present time, particularly the disabled veterans. They are entitled to hospital care without contribution. THE CHAIRMAN: Yes? GENERAL BRADLEY: And we feel that while a contributory system, such as outlined here, although it is not outlined as to how he will pay, while it would provide medical care for his family, he himself would not be getting any additional service by contributing to the system.

SENATOR MURRAY: In other words, he is already entitled himself to the care that the bill would provide? GENERAL BRADLEY: Yes, and to unlimited hospitalization for whatever length of period his sickness requires.

SENATOR MURRAY: So that you believe that it would be appropriate to provide some amendment which might protect the veterans in that right and not in any manner undermine the veterans program? GENERAL BRADLEY: I do not know enough about it to know whether or not an amendment to this bill is necessary, but when it comes down to setting up the machinery for these people to pay, then is the time, I think, you must be careful you do not charge, particularly a disabled veteran, for something he is entitled to. In fact, all veterans are entitled to a certain amount of hospitalization.

SENATOR MURRAY: I see. Then some program outside the veterans program would be a great help to the family of the veterans in the way of providing medical care and hospitalization for them? GENERAL BRADLEY: Well, I should think so. I am not qualified to pass on the benefits of the hospitalization of the whole population, I am afraid. I have been studying it only from the point of view of the veteran himself.

. . . . . .

SENATOR ELLENDER: How would you suggest that we take care of the family of the veteran? GENERAL BRADLEY: Well, that is a thing, I think, you would have to work out, as I understand, in some second part of this bill, where you are going to set up the machinery and the method of financing it. I think it has to be considered very carefully.

SENATOR ELLENDER: I am just wondering how it would be possible to separate the veteran himself from his family, if it is the desire to aid the family. You would have to do it possibly on the basis of charging a veteran less than you would the individual who is not entitled to the services under the veterans program? GENERAL BRADLEY: Either that or you may make this contribution dependent on the number in the family, in which case he would be excluded, possibly, as one of the family.

SENATOR DONNELL: General, would you prefer that medical and surgical services for dependents of veterans should be administered under the facilities of the Veterans Administration rather than some other facilities? GENERAL BRADLEY: No, sir.

SENATOR DONNELL: You would rather not have them? GENERAL BRADLEY: We would rather not, because we do not believe we can take care of that large a load.

SENATOR DONNELL: General, by the use of the term "program" as contained in the chairman's question, there might be an ambiguity. I understand, as I think the chairman indicated, in the first place you are in favor of the general desire of the President to see that adequate measures of some kind be taken for the public health? GENERAL BRADLEY: That is right.

SENATOR DONNELL: But as to whether or not S. 1606, this bill, would accomplish those results satisfactorily you are not undertaking to testify? GENERAL BRADLEY: I do not feel qualified to say.

SENATOR DONNELL: General, going back for just a moment to the veterans, do you feel that it is wise that the Veterans Administration itself shall provide complete medical care for veterans, including non-service connected disabilities? GENERAL BRADLEY: The question of furnishing complete medical service is dependent on two things. SENATOR DONNELL: Yes, sir? GENERAL BRADLEY: First, the desire of Congress to build that many hospitals and pay that much for it. Second, on whether or not you will ever be able to get enough doctors for full time service with the government to staff that many hospitals.

SENATOR DONNELL: Would you regard it as desirable, General, that a veteran receive medical care under two different programs, as, for illustration, have his military wound cared for in a veterans hospital and his treatment for some other disability of a lung nature, for instance, cared for in another hospital? Would you favor that? GENERAL BRADLEY: I do not think that would be necessary, because a man with a service connected disability is entitled to both hospitalization and outpatient service, and with the program we are working on now we would be able to furnish that outpatient service reasonably near his home. In a serious ailment, or periods when he has to have hospital care, that would be furnished in a veterans' hospital not too far away, after we have these new hospitals constructed. We believe, in general, he would prefer to have that outpatient service furnished by us in his own community or in one of our hospitals. At least, we believe we can make that hospital service second to none and one a man would be proud of.

SENATOR DONNELL: And I take it you would favor the idea of the veteran following through and having his treatment under the Veterans Administration, and this outpatient service, if sufficient funds are granted by Congress, to bring that about. GENERAL BRADLEY: That is right.

*(General Bradley described the arrangements made with various medical societies.)*

SENATOR DONNELL: General, in reference to the fact that the Veterans Administration has developed a plan whereby contractual arrangements may be entered into through the cooperation of the state medical society for services of physician members, medical care on a fee basis, have you, generally speaking, found the state medical societies to be cooperative in affording the services, to be of help and assistance in these matters? GENERAL BRADLEY: As far as I know, we have run into no difficulty on it. There may be difficulties I have not heard about yet, because we have arranged it in only a few states so far. It takes time. We can furnish that for the record, if you would like, the number of states we have arranged this with, and there are any number of states that may have refused to do so.

SENATOR MURRAY: Have some states refused to do it? GENERAL BRADLEY: I say if they have. Mr. Birdsall tells me there are seven that have already signed up.

SENATOR MURRAY In your negotiations with the various medical societies you find that each society has proposals of its own, and it is necessary for you to carry on negotiations with them to work out a program. In other words, you do not submit one single program to the medical societies and ask them to accept it, but you negotiate independently with each medical society in each state? GENERAL BRADLEY: Yes.

SENATOR MURRAY: For the service that is to be rendered? GENERAL BRADLEY: And, as I understand it, and this is all done by the medical section, and I have not gone into many of the details, but I have talked with them, and as I understand it the fees vary in different parts of the country and different states for different methods of control, so it is necessary to deal with each state separately.

SENATOR MURRAY: Who is in charge of those negotiations that you mention in your setup? GENERAL BRADLEY: I believe Dr. Harding is in charge.

SENATOR MURRAY: Dr. Harding. Who is the head of the medical staff? GENERAL BRADLEY: Dr. Hawley.

SENATOR MURRAY: They are both members of the American Medical Association? GENERAL BRADLEY: Yes, sir.

SENATOR MURRAY: Have you encountered any resistance from these medical societies in any states against this program whereby you negotiate with them for service on the veterans fee schedule? GENERAL BRADLEY: It has not been called to my attention.

### Statement of Fred Bailey, Legislative Counsel, the National Grange, Accompanied by Mr. Lloyd C. Halvorson

*(Mr. Bailey described the resolutions of the Grange in behalf of extending medical services. It included grants-in-aid to help where need could be shown.)*

. . . . . .

MR. BAILEY: Title II of S. 1606 goes considerably beyond anything proposed or approved by the National Grange. Moreover, it is a proposed extension of federal authority and activity on which there has been no opportunity for an expression of opinion by the public generally. Most of us will agree with the objectives of title II but possibly not the methods. The objectives, as we understand health insurance, are a wider distribution of medical services, universal participation as far as possible in health insurance programs, provision of medical treatment for indigent groups and promotion of national health and efficiency. This bill provides one approach to that problem. That approach is not in conformity with our concept of the scope of the federal government. We are not at all certain that the objectives expressed in the bill would best be attained by that method. Basically there are two approaches. We need to choose between them. One is through a continuation of our slow but steady growth of the voluntary system, including the increasingly popular cooperative or group insurance. The other is through the type of a program proposed in this bill—compulsory insurance. We should weigh carefully both the advantages and the disadvantages of each system—we need to choose the one which will best meet our needs. It is difficult to say which is the cause and which is the result—poor health and low income. If we take sound measures to improve rural health, there would be a resultant economic improvement. Likewise if we take proper steps to improve the income of farmers the result would be to obtain improved medical care. Probably we need to attack the problem from two directions—increased productivity and income and improved medical facilities.

From the strictly medical direction, which is the only one before this committee, we suggest five objectives:

1. We must do something to ease the financial burden of illness so that medical and dental services are within the purse limitation of all.

2. Facilities, like hospitals and health centers, have to be constructed and sanitation must be improved.

3. More doctors, dentists and nurses must be attracted to rural areas.

4. Good preventive public health services must be organized, and people must be better educated about health and disease.

5. The scientific quality of rural medicine and related services must be elevated.

. . . . . .

We are reasonably certain that if we assign this problem to the sphere of governmental responsibility it will mean probably the greatest expansion of federal bureaucracy that we have ever witnessed in peacetimes. It would be difficult to estimate the number of government employees required to administer such a system. It would add enormously to the cost of maintaining national health—without assurance that it would in the long run do a better job than under our present democratic system of free enterprise.

Records and estimates available indicate that the number of persons directly included in such a national health insurance plan would be more than 125,000,000. All of these cases would have to go through the processes of certification, filing, inspection, payment, complaints and adjustments. If an adequate staff and organization were provided, it would mean an army of government employees.

Under our "spoils" system, such an expansion in the number of federal employees could mean patronage—patronage for whatever political party was in power, patronage beyond anything dreamed of in the past, patronage down into every local community in the United States.

This does not necessarily condemn the proposed experiment in compulsory medical insurance, but it is a factor that must be considered. If we bring our doctors under federal control, farmers, lawyers, veterinarians and others serving the public interest may well wonder if they will be next.

It is possible to expand the federal government to a point where states become merely administrative districts under direction from Washington. We have traveled so far in the direction of national control over our economic life that further steps in this direction must necessarily be considered in relation to the distance we already have come.

Whether it would be wise to embark on a further expansion in federal control of such magnitude, with the attendant growth in patronage, is a question to which we should at least give thoughtful consideration. We question whether one in a hundred persons understands the implications of this proposed expansion of federal authority into their very homes.

In the ordinary relationship between patient and physician, the patient of average means is anxious to shorten the period of treatment and he avoids unnecessary claims on the physician's time. The physician likewise is anxious to effect a cure as speedily as possible, retain the patient's good will and build up his own professional reputation. Under compulsory insurance those conditions are subject to some strange inversions. There is a tendency on the part of too many people to "enjoy" a long illness; to run to a physician with every small or imaginary illness. Some physicians, with fees based on the number of calls or patients seen, would yield to the temptation to profiteer, both at the public expense and at the expense of other patients, who might have a more legitimate claim on their time.

This bill has been, mistakenly we believe, castigated as "socialized medicine." Yet it undeniably is a step in that direction. It is the natural tendency of a strong central government to seek to expand and enlarge its authority. That fact is amply illustrated today in economic controls. Those who seek constantly to enlarge central authority over states, cities, communities and individuals do not follow the original concepts of our democracy.

Compulsory health insurance is not a cure-all. It is not a magic elixir for our ills. A number of labor unions, for example, have tried compulsory health insurance for their members and have abandoned it as ineffective, expensive and unworkable. There are no factual data to prove it would work on a national scale.

Compulsory medical insurance is incompatible with the preservation of private medical practice. The government would establish the fees and other rules and regulations governing the relations between physicians and patients. Physicians' books recording confidential information relating to their patients could be opened to government inspection.

Compulsory medical insurance is as un-American as the Gestapo. Theoretically, each physician could refuse to participate in the plan. Actually, because few people would refuse to avail themselves of services already paid for in taxes, the clientele left to nonparticipating physicians would be negligible.

Available experience shows that current individualistic fee-for-service medical practice and tax-supported medicine are incompatible. It is one thing to have a patient pay a doctor for each visit or service rendered and a far different thing to have a third party make the payment.

There is a parallel between public medicine through taxation and food subsidies. Today we are taxing—or piling up debt to be paid out of future taxation—at the rate of two billion dollars a year to pay a part of the food bill of every American family.

For tomorrow, it is proposed in S. 1606, we shall levy still more taxes out of which we are to build another huge federal bureaucracy to administer federal payment of medical and dental bills. If we do that, where are we to stop, short of taxing to meet all the needs of all the people, to make certain that every one has the same sort of a car, the same sort of a house, the same sort of clothes and gets to see the same movies?

It is not to be inferred from that that we oppose cooperative medicine and hospital insurance—we do, however, seriously question the use of compulsion. Compulsion is justifiable only when it can be clearly shown—as in the case of contagious diseases—that the public interest is best served by that approach.

There has been a healthy and commendable growth in recent years of voluntary medical and hospital insurance—group insurance for those who want it. There is every reason to believe that voluntary insurance of that type is in many ways more desirable and economical than the compulsory type suggested under title II of this bill.

It would seem to us to be more desirable for the federal, state and local governments to offer financial assistance, where necessary, in development of voluntary consumer cooperative insurance. The financial resources of some communities undeniably are insufficient to provide adequate medical services either on a cooperative or on a fee for service basis. Other communities have built up cooperative health insurance plans which they like, can afford and want to keep.

There is, I believe, too much of a tendency in Washington to want to manage the lives and activities of every one, whether or not all want or need such federal supervision. We believe that at this time the disadvantages outweigh the advantages. Federalized medicine seems to us to be another step in the wrong direction; that is, toward surrender of more state, local and personal rights to a centralized federal authority. There is no conclusive evidence that Washington officials have a monopoly or even a preponderance of wisdom in the nation. Yet the spread of federal authority over the past generation has occurred at a rate which should give us cause for grave concern. Today one out of every seven employed persons is on the public payroll. There are more people who want the federal government to support them than there are who want to support the federal government.

*(Senator Murray questioned Mr. Bailey and Dr. Halvorson on current activities of the Grange in the field of health care.)*

SENATOR MURRAY: You are familiar with the reports of the Selective Service Administration, which showed that as the result of ill health and defects which were found in the young men coming from the farm areas it was necessary to reject a very high proportion? MR. BAILEY: I believe the records on that will show a very high number were rejected for medical reasons, but a great number were also rejected for illiteracy, but the record does not distinguish between the two, and psychiatric cases, where also it is questionable whether medical aid would have prevented it.

SENATOR MURRAY: Did you have any assistance from medical men in the preparation of the statement you presented here? Mr. BAILEY: I did not consult any medical men.

SENATOR MURRAY: Who assisted you in the preparation of your statement? MR. BAILEY: Dr. Halvorson and I prepared it.

SENATOR MURRAY: He is a member of the medical profession? MR. BAILEY: He is an economist.

SENATOR MURRAY: The compulsion here is the compulsion which would require everybody in the country to participate

in the national insurance program and make contributions to it for the purpose of lowering the cost to the people as a whole. MR. BAILEY: That is true.

SENATOR MURRAY: What objections have you to that kind of compulsion? That is not a compulsion that is going to injure anybody. MR. BAILEY: It is another form of federal control, putting another tax load on the federal government. If, as intended, the tax collected from this would go, all of it, to medical care, then the objection would be less. A portion of that tax to be collected will go to maintain an army, practically, of federal agents, federal bureaus that would have to take all these cases, put them through the process of certification, filing, inspection, payment of claims and adjustments. All of those things must be paid for from the medical bill, from taxes that would otherwise go to the payment of medical bills. It would increase the expenses and it would decrease the amount of money that would actually go to medical treatment.

SENATOR MURRAY: Have you made such a thorough analysis of this bill that you could make that as your own conclusion? MR. BAILEY: That is my own conclusion. I think it is inescapable.

SENATOR MURRAY: What objection do you have to the government undertaking to provide a program whereby the people of the country would be better taken care of? MR. BAILEY: I have the same objection that, whereby the government would, through taxation, take care of my building a house, take care of my buying a car, buying my food, my clothing, my railroad tickets and pay my motion picture bills.

SENATOR MURRAY: You have no objection to the government providing programs whereby the farmers of the country are aided and assisted in matters pertaining to livestock and care of livestock and the manner in which they should be provided for, and so forth? MR. BAILEY: The government has undertaken that not only in the field of agriculture but in every other field, of course. They have been providing advice and technical assistance.

SENATOR MURRAY: You think wherever the government sees where the public is not being provided for that they should give study to it and assist in some manner in bringing about a better situation? MR. BAILEY: Yes, certainly. We think the study in this case here is thoroughly justified and we think the committee is making such a study, and that the committee is working toward a final conclusion, and their work is very commendable.

SENATOR MURRAY: Do you believe that the filing of this bill has developed great interest in the country and will bring about a complete study of the situation and probably result in some very satisfactory legislation? MR. BAILEY: We think that the introduction of the bill and the hearings being held by the committee will add considerably to the knowledge, interest and understanding of the people on this kind of measure, and eventually will lead to solutions of the problems whereby the methods, suggestions, or otherwise, will be carried out.

SENATOR MURRAY: You say in your statement "There is, I believe, too much of a tendency in Washington to want to manage the lives and activities of every one, whether or not they want or need such federal supervision." Can you give me some examples of that? MR. BAILEY: An example of that would be the controls that we have had through the Office of Price Administration, a great many of them. They have tried to delve back into managing the affairs of the country and, as a result, we have had black markets and disregard of regulations. We have built up in this country an attitude of holding the law of the land very lightly.

*(Senator Murray and Mr. Bailey discussed at length factors concerned in inflation.)*

SENATOR DONNELL: What is the total approximate membership [of the Grange] at this time? MR. BAILEY: Eight hundred thousand.

SENATOR DONNELL: The organization is composed very largely of farmers? MR. BAILEY: It is composed almost exclusively of farmers.

SENATOR DONNELL: How widely distributed over the United States is the membership of approximately 800,000? MR. BAILEY: We have organizations in thirty-eight states. We have members in most of the other states, but they are not organized on a statewide basis.

SENATOR DONNELL: The organization holds an annual meeting, does it not? MR. BAILEY: Yes.

SENATOR DONNELL: You refer to the 1945 annual meeting held in Kansas City in November 1945? MR. BAILEY: Yes, sir.

SENATOR DONNELL: How large an attendance was there at that meeting, Mr. Bailey, approximately? MR. BAILEY: I would have to answer that in two ways, Senator. The official attendance consists of representatives of each of the thirty-eight states. The representatives from each state consist of the state master and his wife. We then have the officers of the national convention. That is the entire official attendance. It is a legislative body. I would say that would make up about 125 who are official attendants. At various times during the conventions other people come in. I think the highest number we had at one time was approximately 3,000.

SENATOR DONNELL: Mr. Bailey, may I ask you some questions on your personal experience? What was your occupation before you became the legislative counsel of the National Grange? MR. BAILEY: I was national farm editor for the United Press.

SENATOR DONNELL: How long did you have that connection? MR. BAILEY: Seventeen years.

SENATOR DONNELL: In your connection with the United Press did you have occasion to visit a portion of the United States? MR. BAILEY: I visited every state in the Union, with one exception, as a reporter. SENATOR DONNELL: You became acquainted with farm problems of the country, you think, quite well? MR. BAILEY: I felt that I understood them very well, yes.

SENATOR DONNELL: You believe you are familiar with the sentiment of the farmers of the country? MR. BAILEY: Yes, sir, being a farmer myself.

SENATOR DONNELL: Do you regard the expression that is made by the annual conventions of the National Grange as fairly representative of the sentiment of the great majority of the members of the Grange? MR. BAILEY: I will explain to you how the resolutions are passed, Senator. I believe that will answer the question better than any other way. The resolutions which reach the National Grange floor first must originate in a subordinate grange, which is a local community grange. It must then be passed to the county, which is a promoted grange and consists of delegates of all the granges in the country. It is then sent to the state grange and must be passed there. It is then sent to the National Grange. Every resolution has its roots in the farm home at the local level. It must come from that direction; it can come from no other.

SENATOR DONNELL: Do you think that committee knew of the fact that there had previously been introduced a bill called S. 1050 a year or two before that? MR. BAILEY: I think the Public Health Committee which drafted this was familiar with previous proposals.

SENATOR DONNELL: In other words, the proposal is generally known as the "Wagner-Murray-Dingell proposed legislation." MR. BAILEY: I suppose, since they have made a study of the subject, that they were familiar with it.

SENATOR DONNELL: As you have pointed out in your statement here, "title II of S. 1606 goes considerably beyond anything proposed or approved by the National Grange." Is that not true, Mr. Bailey? MR. BAILEY: That is right.

SENATOR DONNELL: Now, Mr. Bailey, you made reference to various voluntary organizations. I am wondering if you have had it within your knowledge or called to your attention that out in California your organization has had some negotiations or possibly some contractual arrangements, I am not certain which, with the California Physicians Service, looking to the furnishing, by their organization, of approximately 100,000 members of the Grange, of certain facilities offered to the Grange. Are you familiar with that? MR. BAILEY: I know about it, but I am not familiar with the details on it, Senator.

SENATOR DONNELL: You do not have that? MR. BAILEY: I know it is a voluntary system on which we are working.

SENATOR DONNELL: Has that actually been entered into between the Grange and the California Physicians Service, do you know? MR. BAILEY: I am not certain. DR. HALVORSON: I believe I have seen an advertisement to that effect.

SENATOR DONNELL: Your membership in California is about 100,000, is it? MR. BAILEY: It is approximately that.

SENATOR DONNELL: You also referred in your testimony, page 8, to the fact, as you state, that "a number of labor unions,

for example, have tried compulsory health insurance for their members and have abandoned it as ineffective, expensive and unworkable." Do you know how many labor unions have made that experiment? MR. BAILEY: Only two that I know of. I had reports and I did not bring them with me. This is based entirely on reports which I have had and not on personal experience. The International Ladies' Garment Workers was one that tried it.

SENATOR DONNELL: Is that a Congress of Industrial Organizations' organization? MR. BAILEY: I believe it is now affiliated with the Congress of Industrial Organizations.

SENATOR DONNELL: What else do you know about it? MR. BAILEY: Three or four years ago they made a report in which they said that it had been unsuccessful for several reasons. It gave, as among those reasons, the fact that it increased the absenteeism of their members from work because they would be off ill and receive benefits. They would go to a doctor. They were using the services of a doctor when it was not necessary. The physicians who had made contractual relations with the organization had gypped them, in other words, to put it briefly.

SENATOR DONNELL: That has a bearing, I take it, on the point you make in your statement and is illustrative thereof, as you say in your report, "there is a tendency on the part of too many people to 'enjoy' a long illness; to run to a physician with every small or imaginary illness." The experience of the labor unions would bear out that point? MR. BAILEY: Yes, sir.

SENATOR DONNELL: Do you remember what the other one of the two labor unions to which you refer is? MR. BAILEY: My recollection is that it was the Teamsters Union.

SENATOR DONNELL: I wanted to ask you also, with respect to your statement on pages 5 and 6, as to the various indicia of the fact that this would build up a very large list of government employees. Now, you mentioned here, I think, to my mind, at any rate, more clearly and definitely than any other witness we have had, the different types of work that employees would have to do. You mention the processes of certification, filing, inspection and payment of claims and adjustments. You figured here for something around 125 million persons. I think the figures we have had here range from 107 million to 112 million. But at the rate of 107 million people, and to have those functions performed by employees, with respect to 107 million, it is obvious to me that your point is quite clearly well taken that it would require a very large number of employees.

SENATOR MURRAY: You are familiar with the fact that we already have set up in this country a social security system. We have administration headquarters here in Washington. That office is staffed with personnel that would take care of a lot of this work that you have mentioned here. MR. BAILEY: I am aware that you have that setup, yes. I am not familiar with how it could operate in this case.

SENATOR MURRAY: A large part of the office work that should be required under this system will be handled by the personnel of the Social Security Administration as it is now staffed. MR. BAILEY: Am I to infer from that Senator, that it would not be necessary to add more people to the Social Security Board to carry this work?

SENATOR MURRAY: It is possible that more may be added, but you approach it as though you would have to build up from a ground foundation a huge organization now to administer this particular bill. MR. BAILEY: I was assuming that it would be handled independently of any other agency now in existence.

SENATOR DONNELL: If I might interpolate at this point, Mr. Chairman, this may be a violent assumption, but I am assuming for the purpose of argument that the time of the employees' day is reasonably well occupied and that they are not sitting around idly with a lot of vacant space or time to be filled in. While they may be able to add to some extent to the duties to be performed, I would think it would be obvious that, with a vast new system such as this, registration, constant operation, complaints and so on, certainly that would have to entail more people and a great deal more work.

SENATOR MURRAY: Not necessarily very many more, because they already have that setup now under the present Social Security System. It would merely mean a little more work, not much more, because the same people, to a large degree, are already involved in the Social Security program as we have it today. All of these collections, for instance, they will already be paid into the Social Security Fund, and this would be just an addition of an amount added to their contribution.

SENATOR DONNELL: I am pleased that the chairman has mentioned this point, as Mr. Bailey has emphasized his view on it. I think at some future hearing it would be helpful if we had some additional information from the Social Security Board along those lines. SENATOR MURRAY: We intend to present that.

SENATOR DONNELL: Have you ever heard of a book or publication on "Dr. Crownhart on Sickness Insurance"? MR. BAILEY: I am not familiar with it.

SENATOR DONNELL: My information is, though I have not seen the book, that this doctor states, in substance, that in European countries sickness insurance schemes would indicate that one government employee for each hundred insured persons is required to administer and police the insurance system.

SENATOR DONNELL: This insurance plan, as you understand it, is one under which there is going to be a spread of that cost. Some of us do not have to go to a doctor at all. Those that that is true of would contribute something more than they ever had been contributing under any plan. As to the fellow who had been spending lots of money with doctors, he would pay less. MR. BAILEY: How many cents out of every dollar that we pay out would go for medical care, and how many cents would go to administrative care, I am not certain of. It would be a very sizable amount of it.

SENATOR DONNELL: That is a very important question. Now, the bill itself does not contain the financial provisions, does it? MR. BAILEY: I have not found that it does.

*(To be continued)*

## Coming Medical Meetings

American Medical Association, San Francisco, July 1-5. Dr. George F. Lull, 535 N. Dearborn St., Chicago 10, Secretary.

American Academy of Tuberculosis Physicians, San Francisco, June 30. Dr. Oscar S. Levin, P. O. Box 7011, Denver 6, Colo., Secretary.

American Association for the Surgery of Trauma, San Antonio, Texas, June 26-28. Dr. Gordon M. Morrison, 520 Commonwealth Ave., Boston, Secretary.

American College of Allergists, San Francisco, June 28-30. Dr. Fred W. Wittich, 401 LaSalle Medical Bldg., Minneapolis 2, Secretary.

American College of Chest Physicians, San Francisco, June 27-30. Mr. Murray Kornfeld, 500 N. Dearborn St., Chicago 10, Executive Secretary.

American College of Radiology, San Francisco, June 29. Mr. Mac F. Cahal, 20 N. Wacker Drive, Chicago 6, Secretary.

American Medical Women's Association, San Francisco, June 29-30. Dr. Beulah Cushman, 25 E. Washington St., Chicago, Secretary.

American Neurological Association, San Francisco, June 26-28. Dr. Henry Alsop Riley, 117 E. 72d St., New York 21, Secretary.

American Ophthalmological Society, San Francisco, June 26-28. Dr. Walter S. Atkinson, 129 Clinton St., Watertown, N. Y., Secretary.

American Orthopedic Association, Hot Springs, Va., June 27-29. Dr. Charles W. Peabody, 474 Fisher Bldg., Detroit 2, Secretary.

American Proctologic Society, San Francisco, June 30. Dr. Harry E. Bacon, 2031 Locust St., Philadelphia 3, Secretary.

American Radium Society, San Francisco, June 28-29. Dr. Edward H. Skinner, 1103 Grand Ave., Kansas City 6, Mo., Secretary.

American Society for the Study of Sterility, San Francisco, June 29-30. Dr. John O. Haman, 490 Post St., San Francisco 2, Secretary.

American Society of Clinical Pathologists, San Francisco, June 27-30. Dr. A. S. Giordano, 531 N. Main St., South Bend, Ind., Secretary.

American Urological Association, Cincinnati, July 22-25. Dr. Thomas D. Moore, 899 Madison Ave., Memphis 3, Tenn., Secretary.

Association for the Study of Internal Secretions, San Francisco, June 28-29. Dr. Henry H. Turner, 1200 N. Walker St., Oklahoma City, Secretary.

Maine Medical Association, Poland Spring, June 23-25. Dr. Frederick R. Carter, 142 High Street, Portland 3, Secretary.

Montana, Medical Association of, Great Falls, July 18-20. Dr. Raymond F. Peterson, 9 W. Granite St., Butte, Secretary.

Society for Investigative Dermatology, San Francisco, June 30. Dr. S. William Becker, 55 E. Washington St., Chicago 2, Secretary.

# Medical News

(PHYSICIANS WILL CONFER A FAVOR BY SENDING FOR THIS DEPARTMENT ITEMS OF NEWS OF MORE OR LESS GENERAL INTEREST: SUCH AS RELATE TO SOCIETY ACTIVITIES, NEW HOSPITALS, EDUCATION AND PUBLIC HEALTH.)

## CALIFORNIA

**County Society Acquires Blood Bank.**—The Alta Bates East Bay Blood Bank, organized by the Alta Bates Hospital, Berkeley, about two years ago, has been transferred to the Alameda County Medical Association. Dr. David A. Singman, Berkeley, who has supervised the blood bank since its inception, will continue in charge.

**Gibbs Medal Goes to Dr. Pauling.**—The Willard Gibbs Medal of the Chicago section of the American Chemical Society was presented to Linus C. Pauling, Sc.D., June 14. Dr. Pauling is on the staff of the California Institute of Technology, Pasadena, and his work has had significance not only in chemistry but also in physics and biology.

**State Medical Election.**—Dr. John W. Cline, San Francisco, was chosen president-elect of the California Medical Association at its 1946 session in Los Angeles, May 7-10, and Dr. Samuel J. McClendon, San Diego, was installed as president. Dr. Leo H. Garland was chosen secretary to succeed Dr. George H. Kress, and Dr. Dwight Wilbur was named editor of the association's journal, *California and Western Medicine*. All are of San Francisco. A resolution was adopted by the house of delegates in tribute to the many years of service of Dr. Kress and designating him editor emeritus.

## COLORADO

**Hubert Work Honored.**—A plaque commemorating Dr. Hubert Work was presented to the library of the Medical Society of the City and County of Denver, May 7, the gift of Dr. Thomas E. Carmody, Denver. The inscription on the plaque outlines the career of the late Dr. Work, who once served as Postmaster General of the United States, Secretary of the Interior and chairman of the Republican National Committee.

## DELAWARE

**Society News.**—The New Castle County Medical Society was addressed, May 21, by Dr. Arthur M. Shipley, professor of surgery, University of Maryland School of Medicine, Baltimore on the acute surgical conditions of the abdomen.——Dr. Helen B. Taussig, Baltimore, addressed the society recently on "Operative Congenital Malformations of the Heart."

## DISTRICT OF COLUMBIA

**The Collins Research Fund.**—Friends of the late Dr. James Lloyd Collins have established a memorial research fund in the field of surgery which will honor his name and be known as the James Lloyd Collins Research Fund. It is desired that the fund shall remain intact and that the interest derived therefrom shall be used to carry on special research projects in the field of surgery at the George Washington University School of Medicine. All checks should be made payable to George Washington University, marked for the James Lloyd Collins Research Fund, and mailed to the School of Medicine, 1335 H Street N.W.

**Changes at Georgetown.**—Dr. Harold J. Jeghers, associate professor of medicine at Boston University School of Medicine, has been appointed professor and director of the department of medicine at Georgetown University School of Medicine and physician in chief of the Georgetown University Hospital, effective July 1. Dr. Jeghers graduated at Western Reserve University School of Medicine, Cleveland, in 1932 and has been associated with the Boston University School of Medicine and Boston City Hospital since 1935 and with the Robert Dawson Evans Memorial Hospital since 1939.——Dr. Oscar B. Hunter, Washington, was recently appointed adjunct professor of medicine at Georgetown University School of Medicine.

## FLORIDA

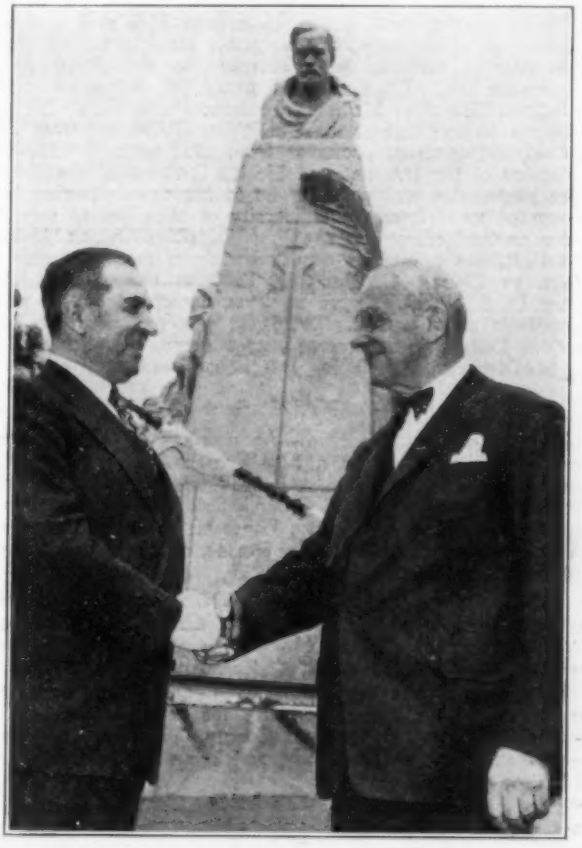
**Director of Tuberculosis Control.**—Dr. Clarence M. Sharp, regional director, U. S. Public Health Service, New Orleans, has been appointed director of tuberculosis control, Florida State Board of Health, according to the *Bulletin* of the National Tuberculosis Association. Dr. Elmer J. Teagarden, Orlando, formerly state director, is now with the Pinellas County Health Department as tuberculosis clinician.

## ILLINOIS

### Chicago

**Hans Popper Returns to Hektoen Institute.**—Dr. Hans P. Popper, recently released from active duty in the Medical Corps in the Army of the United States, has returned to his position as research director of the Hektoen Institute for Medical Research. He has also resumed his duties as director of the department of pathology of the Cook County Hospital.

**Pasteur Memorial Rededicated.**—The transfer of the Pasteur Memorial from Grant Park to Convalescent Park, Medical Center District, was observed in a special rededication program June 10 with Dr. Herman L. Kretschmer, president of the Pasteur Memorial Association, presiding. The memorial was originally erected in Grant Park in 1928 as the result of a public subscription campaign headed by the late Dr. Frank Billings, who had studied under Pasteur in Paris. The memorial as originally erected was designed by Leon Hermant, French sculptor, and Edward H. Bennett, Chicago architect. E. Todd Wheeler, consulting architect, designed the new base



Hon. Jean Joseph Viala  Dr. Herman L. Kretschmer

and supervised transfer of the memorial and erection at the new site. Coath and Goss were contractors for the work. The Pasteur Memorial Association was given the privilege of handling all arrangements for the transfer of the memorial from its original location in Grant Park to its new site in Convalescent Park in the Medical Center District. Among the speakers at the ceremony, marking the transfer, were:

Rev. James T. Hussey, S. J., president, Loyola University.
George McKibbin, Chicago and Springfield, chairman, Illinois Postwar Planning Commission.
Hon. Clayton F. Smith, president, Board of Commissioners of Cook County.
Hon. Edward J. Kelly, mayor of Chicago.
Hon. James H. Gately, president, Chicago Park District.
Louis L. Mann, Ph.D., rabbi.
Hon. Jean Joseph Viala, consul general of France.
The Right Reverend Edwin J. Randall, S.T.D., Suffragan Bishop of the Episcopal Diocese of Chicago.

Dr. Edwin P. Jordan, Associate Editor, THE JOURNAL, delivered an address on "Louis Pasteur, Scientist and Humanitarian." Dr. Raymond B. Allen, president of the Medical Center Commission and executive dean of the University of Illinois Chicago Colleges, gave the speech presenting the memorial, and Clayton F. Smith gave the speech of acceptance.

**Presbyterian Hospital Changes.**—Presbyterian Hospital announces several changes in the chairmen of departments, effective June 1:

Dr. Edward D. Allen succeeds Dr. N. Sproat Heaney, resigned, as chairman of the department of obstetrics and gynecology.

Dr. Stanton A. Friedberg succeeds Dr. Daniel B. Hayden, resigned, as chairman of otolaryngology.

Dr. John Favill succeeds the late Dr. Peter Bassoe as head of neuropsychiatry.

As a part of the enlarged research-education program of the hospital, full time directors of pathology and biochemistry have been serving since the first of the year. Dr. George M. Hass has succeeded Dr. George J. Rukstinat, resigned, as chairman of pathology, and Dr. Douglas A. MacFadyen has been placed in charge of biochemistry.

**Lowell Coggeshall Joins University of Chicago.**—Dr. Lowell T. Coggeshall, professor and chairman of the department of epidemiology, University of Michigan School of Medicine, Ann Arbor, has been appointed professor and chairman of the department of medicine at the University of Chicago School of Medicine, effective July 1. He succeeds Dr. George F. Dick, who has held the position since 1933 and who was professor of clinical medicine at Rush Medical College from 1918 until its activities were absorbed by the University of Chicago in 1942. Dr. Coggeshall graduated at the University of Indiana School of Medicine, Indianapolis, in 1928. He was instructor in medicine at the University of Chicago from 1931 to 1933 and assistant professor from 1933 to 1935. He was a member of the International Health Division of the Rockefeller Foundation and in 1941 went to Michigan. During 1942 he was on leave from the University of Michigan to serve as senior medical officer for the Pan American-African Airlines in establishing a medical department from the west coast of Africa to China. On Jan. 29, 1944 he was commissioned in the U. S. Naval Reserve to direct a tropical disease study on malaria and filariasis. Dr. Dick, who graduated at Rush Medical College in 1905, was once a member of the staff of the McCormick Institute for Infectious Diseases.

## KANSAS

**State Medical Election.**—At a recent meeting of the Kansas Medical Society Dr. Laurence S. Nelson, Salina, was chosen president-elect, and Dr. William M. Mills, Topeka, was installed as president. Other officers include Drs. Oscar W. Davidson, Kansas City, and James H. A. Peck, St. Francis, vice presidents; Dr. John M. Porter, Concordia, secretary, and Dr. John L. Lattimore, Topeka, treasurer.

**Changes in Health Personnel.**—Dr. Albert E. Bair, Independence, has been appointed health director of the Montgomery County Health Department, effective April 1, succeeding Dr. Harold O. Bullock, Independence, who in the last eight months has served as a temporary part time health officer. Part time appointments include those of Drs. Carl E. Sixbury, Oberlin, of Decatur County, William J. Stewart, Frankfort, of Marshall County, and Lynn E. Beal, Fredonia, of Wilson County.

## MARYLAND

**Robert Patterson Resigns at Maryland.**—Dr. Robert U. Patterson has resigned as dean of the University of Maryland School of Medicine, Baltimore, effective June 30. Dr. Patterson, who graduated at McGill Faculty of Medicine, Montreal, Canada, in 1898, served for many years in the Medical Corps in the U. S. Army, retiring in 1935 as major general. He was dean of the University of Oklahoma School of Medicine, Oklahoma City, from 1935 until 1942, when he accepted a similar position at Maryland.

## MASSACHUSETTS

**Appointments at Harvard.**—Dr. Kendall Emerson Jr., formerly associated with the Rockefeller Institute and recently returned from service with the U. S. Naval Medical Research Unit number 2 on Guam, has been appointed associate in medicine at Harvard Medical School and senior associate in medicine at the Peter Bent Brigham Hospital, Boston. In addition to clinical teaching and research, Dr. Emerson will be in charge of the Chemical Laboratory and the metabolic division of the hospital. Dr. Henry M. Fox, formerly associated with Johns Hopkins University School of Medicine and Hospital, Baltimore, and recently returned from service with the U. S. Army 118th General Hospital, has been appointed assistant professor of psychiatry at Harvard Medical School and senior associate in psychiatry at the Peter Bent Brigham Hospital. Dr. Fox will direct a program coordinating the teaching of psychiatry and internal medicine. This particular study is being carried on under a grant from the Commonwealth Fund.

**Frances Bonner Named First Fellowship Holder in Genetics.**—Dr. Frances J. Bonner, Boston, has been awarded the Helen Putnam Fellowship for Advanced Research in Genetics or Mental Health at Radcliffe College, it was announced, May 27. She will be the first holder of the fellowship, which was established in 1944 by a gift of Dr. Helen C. Putnam of Providence, R. I. (THE JOURNAL, Dec. 23, 1944, p. 1094), and will take up residence at the college October 1. The award, which carries a $2,000 stipend for an eleven month period, is open annually to a mature woman scholar who is qualified to carry on significant research or creative work. Dr. Bonner graduated at Boston University School of Medicine in 1943. She is at present assistant in research in neuropathology at the Boston City Hospital and assistant in neurology as well as assistant laboratory instructor in neuropathology, Harvard Medical School, Boston. As holder of the Helen Putnam Fellowship she will do research on hereditary and social factors in hysteria.

**New Scientific Research Laboratory.**—On May 17 the new scientific research laboratory at McLean Hospital, Waverley, was formally dedicated. The new unit represents a serious and permanent venture in psychiatric research which has been established by the Massachusetts General hospitals, of which McLean is the mental disease department. The laboratory facilities provided are of the most modern type for biochemical work, including adequate low temperature rooms. Dr. Jorge Folch-Pi is director of the laboratory and assistant professor of biologic chemistry at Harvard Medical School, Boston. In addition to these responsibilities, Dr. Folch-Pi will train graduate students interested in fundamental and objective research in psychiatry. It is hoped that as the work branches out in physiologic and psychiatric directions additional funds will be made available. At the dedicatory program the speakers included:

Dr. Cecil K. Drinker, professor of physiology, Harvard School of Public Health, Research at the McLean Hospital.
Dr. Folch-Pi, Biochemical Problems Related to Psychiatry.
Dr. Stanley Cobb, chief of psychiatric service, Massachusetts General Hospital, and Bullard professor of neuropathology, Harvard Medical School, The Integration of Medical and Psychiatric Problems.
Dr. Herbert S. Gasser, director, Rockefeller Institute for Medical Research, New York, Protocol for a Review of Psychiatry.
Dr. Wilder G. Penfield, chief of neurologic service, Montreal, Que., Neurological Institute, Neurosurgery as an Avenue of Approach to Psychiatric Problems.

At the reception and dinner Dr. Edward A. Strecker, professor of psychiatry, University of Pennsylvania School of Medicine, Philadelphia, spoke on "The Psychobiology of Psychiatric Research."

## MICHIGAN

**Icie Macy-Hoobler Honored.**—The Francis P. Garvan Medal of the American Chemical Society was awarded to Icie Macy-Hoobler, Ph.D., director of the research laboratory of the Children's Fund of Michigan, Detroit. Dr. Hoobler was honored for her studies on nutrition and the chemical processes of human growth.

**Changes in Health Officers.**—Dr. Lars W. Switzer, for two years plant physician for General Motors Corporation, Bay City, has been named head of the Manistee-Benzie Health Unit, with headquarters in Manistee, a position he once before held.——Dr. Clarence D. Barrett, Mason, on service with the Army of the United States, has been appointed health officer of Ottawa County.——Dr. Charles F. Atkinson, Traverse City, has resigned as director of the Grand Traverse-Leelanau County Health Department because of ill health.

**Personal.**—Mr. Jay C. Ketchum, director, Division of Prepayment Medical Care of the Council on Medical Service and Public Relations, American Medical Association, and executive vice president and director of Michigan Medical Service, Detroit, was made an honorary member of the Wayne County Medical Society during its annual meeting May 6.——Dr. Lunette I. Powers, Muskegon, was recently given honorary life membership in the Muskegon County Medical Society.——Dr. James F. Darby, St. Ignace, recently completed fifty years of medical practice in Mackinac County.——Dr. Walter Newburn, for the past twenty years a professional service representative for Frederick Stearns and Company division, Sterling Drug Inc., Detroit, has retired under the company's pension plan. Dr. Newburn expects to live at Sacketts Harbor, Jefferson County, N. Y., and devote his time to writing.

## NEW YORK

**Fund for Anti-Rabies Work.**—The Westchester County board of supervisors has appropriated $18,000 to finance anti-rabies inoculations for the licensed dogs of Westchester County. Inoculations, which will begin July 1 at clinics operated by the county health department, will be without cost to the owners and only on the consent of owners.

### New York City

**Council for Heart Disease Organized.**—At a meeting on May 21 the Council for Heart Diseases was organized to stimulate research and public education in the field of heart and cardiovascular disease. The council will raise funds by voluntary subscription, concentrating early efforts in New York State but expanding later to all parts of the nation. The council will start next year with a campaign to raise $500,000, the greater portion of which will be applied in 1947 to the budget of the New York Heart Association, 2 East 103d Street. A statement by the organizing group said that the council was organized "at the special request of" Governor Thomas E. Dewey, who said "I am not entitled to all that credit," which should properly go to Dr. Edwin P. Maynard Jr., Brooklyn, president of the New York Heart Association, Dr. Abram W. Duryee, the governor's physicians and others. Dr. Maynard was elected a vice president, and a nominating committee was appointed to select a president for the council.

## NORTH CAROLINA

**Dr. Lehman Goes to Washington.**—Dr. Arnold J. Lehman, professor of pharmacology, University of North Carolina School of Medicine, Chapel Hill, has resigned, effective July 1, to assume the position as chief of the division of pharmacology of the Food and Drug Administration, Federal Security Agency. Dr. Lehman graduated at Stanford University School of Medicine, San Francisco, in 1936. He has served on the staffs of Washington, Stanford and Wayne University. His appointment fills the vacancy that occurred with the death of Herbert O. Calvery, Ph.D.

## NORTH DAKOTA

**New Medical Center.**—Mr. John A. Page, Grand Forks, has been named director of the North Dakota State Medical Center at the University of North Dakota, University Station, Grand Forks, which was created under a legislative act by the last assembly. The purpose of the center is to provide facilities for the coordination, improvement, expansion and unification of health and welfare activities of the state and its agencies and its political subdivisions and private medical practitioners. The control and operation of the center are under the administrative authorities of the University of North Dakota and its medical school under the supervision of the state board of higher education. Physician members of the medical center advisory council include Drs. John H. Moore, Grand Forks, George F. Campana, Bismarck, and Harley E. French, Grand Forks, secretary.

## OHIO

**Medical Director Named for Goodrich Company.**—Dr. Rex H. Wilson, first affiliated with the B. J. Goodrich Company, Akron, has been appointed medical director, succeeding Dr. Donald B. Lowe, who died March 2. Dr. Wilson graduated at Ohio State University College of Medicine, Columbus, in 1935 and once served on the staff of the University of Chicago Medical School.

**New Professor of Anatomy.**—Joseph L. Schwind, Ph.D., associate professor of anatomy at Albany Medical College, Union University, since 1938, has been appointed Frances Brunning professor of anatomy at the University of Cincinnati College of Medicine, effective May 1. Dr. Schwind graduated at Cornell University in 1925 and received his Ph.D. in anatomy at Yale University in 1928.

**Conservation, Nutrition and Human Health.**—The fifth Conference on Conservation, Nutrition and Human Health will be held at the university campus, Athens, June 29-30. Included among the speakers will be:

Dr. James Asa Shield, Richmond, Va., Psychologic Behavior of People in Relation to Soil Fertility.
Dr. Alice D. Chenoweth, Rosemont, Pa., The Nutritional and Chemical Growth in Childhood.
Dr. John A. Saxton Jr., St. Louis, Nutrition, Growth and Their Influence on Longevity.
Edward H. Graham, Ph.D., Washington, D. C., The Capacity to Use Our Land.
Dr. Jonathan Forman, Columbus, Current Thinking on Nutrition.

**Lay Diabetes Association.**—The Lay Diabetes Association was organized at a meeting in Cincinnati April 30. Mr. Eldon Park was elected temporary president and Miss Alice Huenefeld temporary secretary-treasurer. Announcement was made at the meeting that no advice with regard to treatment will be given, since this is strictly the function of the patient's physician. It was also stated that practicing physicians would not participate in the organization or address its meetings. It is intended that the activities of the association shall be determined by its own members, with the Public Health Federation offering assistance in the way of providing educational material, clerical work and similar service. The Council on Diabetes of the Public Health Federation took the initiative in stimulating the formation of the association through interested lay persons. Before doing so the project was cleared with the council of the Academy of Medicine of Cincinnati, and the council's approval was secured. In the invitations sent out, diabetic patients were asked to discuss the matter with their physicians and to secure their physicians' advice as to whether they should attend the meeting.

## OREGON

**The Sommer Lectures.**—The fifth series of Sommer Memorial Lectures were presented at the University of Oregon Medical School, Portland, June 6-8. Sir Reginald Watson-Jones spoke on "Multiple Injuries, Six Years with the Royal Air Force," "Internal Fixation and Bone Grafting in Fracture Treatment" and "The Rehabilitation Racket," and Dr. Louis H. Newburgh, Ann Arbor, Mich., gave three lectures on "The Significance of Extracellular Fluid in Clinical Medicine." These lectures are a memorial to the late Dr. Ernst A. Sommer, emeritus professor of surgery.

## PENNSYLVANIA

### Philadelphia

**Strittmatter Award Goes to Francis Borzell.**—The twenty-third annual Dr. Isidor P. Strittmatter Award for the year 1945 was bestowed on Dr. Francis F. Borzell at a meeting of the Philadelphia County Medical Society, May 15. Dr. George P. Muller, chairman of the Strittmatter Award committee, presented the award, consisting of a gold medal and scroll. The inscription on the scroll read "In recognition of his outstanding services in behalf of the contributions of organized medicine to World War II and his sincere devotion and constructive effort in safeguarding the principles of the American system of medicine." This annual award is made possible through the generosity of Dr. Strittmatter, to foster high ideals and distinguished service redounding to the credit of the medical profession in the interest of humanity. A feature of the meeting was the presentation of the DeCosta Oration by Dr. Damon B. Pfeiffer on "The Evolution and Present Status of the Treatment of Compound Fractures."

## WEST VIRGINIA

**Personal.**—Dr. Charles E. Hammer, Columbus, Ohio, has been appointed superintendent of the Spencer State Hospital, Spencer, effective May 1. Dr. Hammer succeeds Dr. Alfred L. Morris, who has been acting superintendent since December 1943 and who will remain on the hospital staff as an assistant superintendent.——Dr. Leon A. Dickerson, Oak Hill, has been appointed director of the Boone County Health Department, effective April 1, succeeding Dr. Robert L. Hunter, Madison, resigned.

**State Medical Election.**—Dr. Wade H. St. Clair, Bluefield, was unanimously elected president of the West Virginia State Medical Association during its meeting in Huntington, May 14. New vice presidents include Drs. James S. Klumpp, Huntington, and Basil L. Page, Buckhannon. Other officers include Dr. Thomas M. Barber, Charleston, treasurer, reelected, and Mr. Charles P. Lively, executive secretary. Newly elected officers will assume their positions July 1. There were 429 physicians in attendance at the meeting. Only one time before has the 1946 attendance been exceeded, and this was in Clarksburg several years ago when 502 West Virginia physicians were registered. Honorary life memberships were conferred on:

Dr. Robert L. Hunter, Madison.
Dr. Americus J. Kemper, Lost Creek.
Dr. Benjamin F. Brugh, Clearwater, Fla.
Dr. James R. Vermillion, Princeton.
Dr. David B. Lepper, Bluefield.

## GENERAL

**Executive Secretary Named for Society of Medical Research.**—Mr. Ralph A. Rohweder, Chicago, president of the Junior Association of Commerce of Chicago, has been appointed executive secretary of the National Society for Medical Research. Prior to his appointment Mr. Rohweder was editor of the *Farm Safety Review*, a publication of the National Safety Council, to which group he had also served as consultant. Permanent headquarters of the recently organized National Society for Medical Research are at 25 East Washington Street, Chicago.

**Prevalence of Poliomyelitis.**—Reports of cases of poliomyelitis for the periods indicated have been received from the division of public health methods, U. S. Public Health Service, as follows:

| Division and State | Week Ended June 8, 1946 | Week Ended June 9, 1945 | Median, 1941-1945 |
|---|---|---|---|
| New England States: | | | |
| Maine | 0 * | 0 | 0 |
| New Hampshire | 0 | 1 | 1 |
| Vermont | 0 | 0 | 0 |
| Massachusetts | 0 | 1 | 0 |
| Rhode Island | 0 | 0 | 0 |
| Connecticut | 1 | 0 | 1 |
| Middle Atlantic States: | | | |
| New York | 6 | 11 | 4 |
| New Jersey | 0 | 0 | 0 |
| Pennsylvania | 3 | 1 | 0 |
| East North Central States: | | | |
| Ohio | 4 | 0 | 0 |
| Indiana | 1 | 1 | 0 |
| Illinois | 4 | 2 | 2 |
| Michigan | 0 | 0 | 0 |
| Wisconsin | 0 | 0 | 0 |
| West North Central States: | | | |
| Minnesota | 3 | 0 | 0 |
| Iowa | 1 | 0 | 0 |
| Missouri | 2 | 0 | 0 |
| North Dakota | 0 | 0 | 0 |
| South Dakota | 0 | 0 | 0 |
| Nebraska | 0 | 0 | 0 |
| Kansas | 7 | 0 | 0 |
| South Atlantic States: | | | |
| Delaware | 0 | 0 | 0 |
| Maryland | 0 | 0 | 0 |
| District of Columbia | 0 | 1 | 0 |
| Virginia | 0 | 2 | 0 |
| West Virginia | 1 | 1 | 0 |
| North Carolina | 2 | 2 | 0 |
| South Carolina | 3 | 3 | 1 |
| Georgia | 1 | 0 | 0 |
| Florida | 33 | 1 | 1 |
| East South Central States: | | | |
| Kentucky | 0 | 0 | 1 |
| Tennessee | 3 | 2 | 1 |
| Alabama | 15 | 2 | 1 |
| Mississippi | 1 | 0 | 0 |
| West South Central States: | | | |
| Arkansas | 2 | 1 | 1 |
| Louisiana | 9 | 1 | 1 |
| Oklahoma | 2 | 1 | 1 |
| Texas | 35 | 42 | 1 |
| Mountain States: | | | |
| Montana | 0 | 0 | 0 |
| Idaho | 0 | 0 | 0 |
| Wyoming | 0 | 0 | 0 |
| Colorado | 5 | 0 | 0 |
| New Mexico | 0 | 0 | 0 |
| Arizona | 1 | 0 | 0 |
| Utah | 0 | 1 | 0 |
| Nevada | 0 | 0 | 0 |
| Pacific States: | | | |
| Washington | 1 | 2 | 1 |
| Oregon | 0 | 0 | 0 |
| California | 15 | 13 | 9 |
| Total | 161 | 92 | 41 |
| First 23 weeks: 1946 and 1945.. | 1,196 * | 903 | 586 |

* Delayed report: Week ended June 1, Maine 1 case.

**Institute of Biology Proposed.**—The organization of an American Institute of Biology is now being developed through the executive committees of the Union of American Biological Societies and the American Biological Society in cooperation with other groups. An initiating committee has been formed and authorized to expand with a view toward complete geographic distribution and adequate representation of the principal societies of biology. A statement has been approved by the council of the Union of American Biological Societies, comprising thirty-nine national societies, to endorse the formation of the organization of biologists on the basis of the two following general propositions:

To provide a means for executing our public responsibilities as biologists and scientists, so that the freedom essential to the progress of science and public welfare will be insured.

To safeguard the professional interests of biologists and to assist in providing the material means for the promotion of biological research; also to provide such services as may be necessary to facilitate this program.

According to *Science*, a main feature is the importance of closely relating the proposed institute with the National Research Council and having the institute serve to strengthen and supplement the activities of the council.

**Pan American Medical Women's Alliance.**—The Pan American Medical Women's Alliance was incorporated at Columbus, Ohio, April 18, to set up an organization for the interchange of ideas among physicians in the Western Hemisphere. According to press reports the plan was fostered in Cincinnati to bring about an interchange of all possible medical ideas among women who are practicing physicians in the United States and South American countries. Trustees of the new group include Drs. Helen I. Glueck, Cincinnati; Elizabeth Mason-Hohl, Los Angeles; Esperanza Oteo de Hoogh, Mexico City; Rita V. S. Finkler, Newark, N. J.; Alma Dea Morani, Philadelphia; Victoire D. Lespinasse, Chicago, and Margaret M. Nicholson, Washington, D. C. It is hoped to hold a meeting in Mexico City in about six months.

**Fellowships Available for Study of Rheumatic Fever.**—The American Council on Rheumatic Fever of the American Heart Association announces that it will entertain applications for American Legion fellowships for the study of rheumatic fever. Applications will be accepted from recognized institutions concerned with the study of rheumatic fever and rheumatic heart disease. Two fellowships are available. Each is for a period of three years and carries a stipend of $3,500, $4,000 and $5,000 for the first, second and third years respectively. Each application should supply information concerning the institution, the projected study and the person proposed for the fellowship. Applications will be received until August 1 and become effective September 1. The American Legion fellowships for the study of rheumatic fever have been made available by a grant from the American Legion and the Women's Auxiliary of the American Legion as part of their program of fostering research in rheumatic fever and rheumatic heart disease through the American Council on Rheumatic Fever of the American Heart Association (THE JOURNAL, June 15, p. 620).

## CANADA

**Cancer Society Changes Name.**—The Canada Society for the Control of Cancer recently voted to change its name to the Canadian Cancer Society. Mr. J. G. Stephenson, London, Ont., was elected president to succeed Dr. John S. McEachern, Calgary, Alta., first president, who resigned in 1944 because of ill health. Mr. Stephenson is the assistant general manager and director of agencies for the London Life Insurance Company.

**Personal.**—Major Gen. Charles P. Fenwick, Toronto, Ont., who was director general of medical services for the Canadian army in World War II, has been named chief of medical services for the Canadian Pacific Railway, with headquarters in Montreal. He succeeds Dr. Henry A. Beatty, Toronto, who has retired after forty-four years of service, thirty of them in charge of the medical department.

**Canadian Medical Association.**—The 1946 session of the Canadian Medical Association was held in Banff Springs Hotel, June 10-14, under the presidency of Dr. Léon Gérin-Lajoie, Montreal. Included among the many speakers on the program were:

Dr. Leonard G. Parsons, Birmingham, England, The Blackader Oration.
Dr. Arthur W. Proetz, St. Louis, Reliability of Radiologic Evidence of Sinus Disease.
Dr. Rubin Flocks, Iowa City, Carcinoma of the Bladder.
Dr. Alan A. Moncrieff, London, England, subject not announced.
Dr. Donald Patterson, London, England, subject not announced.

**Osler Medal to Student.**—The American Association of the History of Medicine at its annual meeting held in Atlantic City, May 27, awarded the William Osler Medal to Mr. Peter Kellaway of McGill University Faculty of Medicine, Montreal, for his essay "The Part Played by Electric Fish in the Early History of Bioelectricity and Electrotherapy." The William Osler Medal was established by the association in order to stimulate interest and research in medical history among students of the medical schools of the United States and Canada and is granted annually to the author of the best student essay submitted to the association.

## CORRECTION

**Academy of Sciences.**—Karl P. Link, Ph.D., is professor of biochemistry in the College of Agriculture in the University of Wisconsin and not in the medical school, as was reported in THE JOURNAL, June 1, page 473.

# Deaths

**John Prescott Grant** ✠ Coral Gables, Fla.; McGill University Faculty of Medicine, Montreal, Que., Canada, 1895; born in New Glasgow, N. S., Canada, Oct. 31, 1872; fellow of the American College of Surgeons, New York Academy of Medicine and the National Society for the Advancement of Gastroenterology; member of the Royal College of Surgeons and the New York Gastroenterology Society; chief of the surgical clinic from 1907 to 1912 at Cornell University Medical College, New York, where he had been instructor in operative and clinical surgery from 1906 to 1912; adjunct professor of surgery from 1912 to 1914, clinical professor of surgery from 1914 to 1917 and professor of surgery from 1917 to 1938 at the New York Polyclinic Medical School and Hospital, where he had been president of the faculty from 1924 to 1926; director of the department of surgery for two years and later consulting surgeon and surgeon at the Polyclinic Hospital; consulting surgeon to the New York City, Midtown, Peoples and Bronx Maternity hospitals in New York; served as director of surgery at the Long Beach (N. Y.) Hospital; author of the surgical section in Dr. Samuel Weiss's textbook "Diseases of the Stomach, Liver and Pancreas" in 1935; died in the Sun-Ray Park Health Resort in Miami, Fla., May 27, aged 73, of cerebral hemorrhage.

**Warren Zimmerman Anders** ✠ Collegeville, Pa.; Medico-Chirurgical College of Philadelphia, 1898; served as president of the local board of education; died in the Montgomery Hospital, Norristown, March 27, aged 70, of carcinoma of the bladder.

**Charles James Burgess** ✠ Lawrence, Mass.; Tufts College Medical School, Boston, 1898; specialist certified by the American Board of Radiology Inc.; member of the New England Roentgen Ray Society and the Radiological Society of North America, Inc.; on the staff of the Lawrence General Hospital; died February 16, aged 76, of cerebral hemorrhage.

**Charles Smiley Cavett,** North Baltimore, Ohio; Starling Medical College, Columbus, 1895; served as mayor of the village for two terms and as councilman for one term; lieutenant in the medical corps of the U. S. Army during World War I; died February 16, aged 78.

**Oliver Thaddeus Clark,** Keokuk, Iowa; Drake University College of Medicine, Des Moines, 1909; member of the American Medical Association; on the staffs of St. Joseph's Hospital and the Graham Protestant Hospital, where he died March 13, aged 63, of coronary thrombosis.

**Henry Magruder De Jarnette,** Fredericksburg, Va.; University College of Medicine, Richmond, 1897; member of the American Medical Association; died in February, aged 72, of coronary thrombosis.

**Lorenzo Simeon Dewey** ✠ Okanogan, Wash.; Northwestern University Medical School, Chicago, 1907; for many years city and county health officer; died February 28, aged 64, of coronary thrombosis.

**William Thomas Dickerson,** Licking, Mo.; Marion-Sims College of Medicine, St. Louis, 1892; died February 8, aged 81, of carcinoma.

**Edward Lewis Dodd,** Belleville, N. J.; Columbia University College of Physicians and Surgeons, New York, 1900; member of the American Medical Association; for many years medical examiner for the Pennsylvania Railroad; died February 19, aged 73, of cerebral thrombosis.

**Frantz Brandon Erwin,** Oklahoma City; University Medical College of Kansas City, Mo., 1906; member of the American Medical Association; died February 28, aged 72, of cerebral hemorrhage.

**John L. Fennell,** Waterloo, S. C.; University of Georgia Medical Department, Augusta, 1902; honorary member of the South Carolina Medical Association; member of the American Medical Association; served as secretary-treasurer of the Laurens County Medical Society; died February 27, aged 68, of cerebral hemorrhage.

**William Francis Flanagan** ✠ New Britain, Conn.; Fordham University School of Medicine, New York, 1917; fellow of the American College of Surgeons; on the staff of the New Britain General Hospital; died February 13, aged 54, of heart disease.

**Mary Stamper Hornby Frost,** Brookline, Mass.; Boston University School of Medicine, 1891; died in Worcester recently, aged 92, of bronchopneumonia.

**Grover Willis Gaines,** Richmond, Mo.; University Medical College of Kansas City, 1911; member of the American Medical Association; formerly secretary of the Ray County Medical Society; served during World War I; for many years county coroner; died in the Trinity Lutheran Hospital, Kansas City, February 26, aged 60, of coronary thrombosis.

**Harry Shirk Garrett** ✠ Park Ridge, N. J.; University of Buffalo School of Medicine, 1914; member of the Medical Society of the State of New York; served as a lieutenant in the medical corps of the U. S. Army during World War I; died April 1, aged 54, of coronary thrombosis.

**Henry Oswald Grangaard** ✠ Jamestown, N. D.; University of Minnesota College of Medicine and Surgery, Minneapolis, 1908; member of the American Medical Association and the Minnesota State Medical Association; affiliated with the North Dakota State Hospital for Insane; died February 10, aged 63, of coronary occlusion.

**Joseph Henry Graves,** Houston, Texas; University of Texas School of Medicine, Galveston, 1912; member of the American Medical Association; served during the Spanish-American War and World War I; formerly member of the county school board; died in the Veterans Administration Facility, Dallas, February 22, aged 71, of brain tumor.

**Anna Morgan Handshaw,** Chicago; Northwestern University Woman's Medical School, Chicago, 1893; member of the American Medical Association; died in the Garfield Park Hospital February 20, aged 88, of chronic myocarditis.

**Benjamin Harmon Hawkins** ✠ Mena, Ark.; University of Arkansas School of Medicine, Little Rock, 1904; served during World War I; formerly owner of the Mena Hospital; died January 13, aged 67.

**Charles Arthur Hayes,** Glendale, Calif.; University of Southern California School of Medicine, Los Angeles, 1900; fellow of the American College of Surgeons; formerly a medical missionary in China; died in the Good Samaritan Hospital, Los Angeles, February 25, aged 73, of cerebral hemorrhage.

**Ralph Philip Higgins,** Ansley, Neb.; University of Nebraska College of Medicine, Omaha, 1912; served during World War I; died February 22, aged 57, of coronary thrombosis.

**John Dixon Jackson,** Connellsville, Pa. (licensed in Pennsylvania in 1883); died recently, aged 93, of arteriosclerosis.

**Charles F. Kirkpatrick,** Ashland, Neb.; Columbus Medical College, 1882; member of the American Medical Association; formerly affiliated with the local school board; died February 25, aged 88, of coronary thrombosis.

**Milton Korb,** Providence, R. I.; Columbia University College of Physicians and Surgeons, New York, 1939; served a residency at the Boston City Hospital and an internship at St. Joseph's Hospital; commissioned a lieutenant in the medical corps, Army of the United States, on April 2, 1942; promoted to captain; relieved from active duty; died Dec. 29, 1945, aged 35, of coronary thrombosis.

**Harry Michael Kraemer** ✠ Scranton, Pa.; University of Pennsylvania School of Medicine, Philadelphia, 1914; served overseas during World War I; for many years affiliated with the State Hospital; died February 16, aged 54, of chronic myocarditis.

**James Stevens Macdonald,** Brookline, Mass.; McGill University Faculty of Medicine, Montreal, Que., Canada, 1899; died February 26 of cerebral arteriosclerosis.

**John A. McCollum** ✠ Vonore, Tenn.; Chattanooga Medical College, 1894; died February 20, aged 78, of heart disease.

**Oscar Tracy McDonough,** Washington, Pa; College of Physicians and Surgeons, Baltimore, 1904; member of the American Medical Association; died recently, aged 75, of generalized arteriosclerosis.

**Thomas Chester McCord,** Paris, Ill.; Medical College of Ohio, Cincinnati, 1883; formerly mayor; served during the Spanish-American War; for many years member of the city council; died in the Paris Hospital February 13, aged 89.

**Melvin Saunders McLeod,** Melrose, Mass.; University of Vermont College of Medicine, Burlington, 1920; member of the American Medical Association; served during World War I; on the staff of the Melrose Hospital; associate member of the Malden (Mass.) Hospital staff; died in Somerville February 26, aged 49, of coronary thrombosis.

**John T. Moss** ✠ Memphis, Tenn.; Jefferson Medical College of Philadelphia, 1908; died March 12, aged 66, of mitral regurgitation.

**Winfield Scott Nickerson,** Faribault, Minn.; University of Minnesota College of Medicine and Surgery, Minneapolis, 1905; served during World War I; on the staff of the St. Lucas Evangelical Deaconess Hospital; died in Bedford, Mass., recently, aged 81, of arteriosclerotic heart disease.

**Charles Ilsley Porter,** Sharon, Mass.; Boston University School of Medicine, 1888; for many years a member of the board of health in Canton; a member of the staff of the Norwood (Mass.) Hospital; died February 18, aged 81, of coronary thrombosis.

**Clarence Marion Porter,** Woodward, Iowa; Drake University Medical Department, Des Moines, 1901; member of the American Medical Association; on the staff of the Hospital for Epileptics and School for Feebleminded; died in the Mercy Hospital, Des Moines, February 16, aged 70, of carcinoma of the bladder.

**John D. Quarles,** Whitleyville, Tenn.; University of Nashville Medical Department, 1896; member of the American Medical Association; died January 29, aged 73.

**John Henry Reb** ✠ Brooklyn; College of Physicians and Surgeons, medical department of Columbia College, New York, 1894; on the staff of the Samaritan Hospital; member of the board of visitors of the Kings Park (N. Y.) State Hospital, where he had been president; died February 10, aged 72, of carcinoma of the urinary bladder.

**Daniel Waldo ReMine,** Amarillo, Texas; University of Tennessee College of Medicine, Memphis, 1932; member of the American Medical Association and the New Mexico Medical Society; died February 12, aged 38, of tuberculosis.

**Eldred Andre Roberts,** Baltimore; University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, 1929; member of the American Medical Association; died recently, aged 49.

**William J. Saling** ✠ Decatur, Ill.; University of Louisville (Ky.) Medical Department, 1892; known for his invention of a metal splint designed to prevent "flat wrist" following forearm or wrist breaks; died May 9, aged 80, of myocarditis.

**Owen Rogers Stafford,** Los Angeles; University of Southern California School of Medicine, Los Angeles, 1901; specialist certified by the American Board of Radiology, Inc.; at one time professor of roentgenology at the College of Medical Evangelists; served as county health officer; died February 16, aged 69, of arterial thrombosis.

**James T. Stone,** Oneonta, Ala.; Memphis (Tenn.) Hospital Medical College, 1891; member of the American Medical Association; died February 5, aged 80, of myocardial degeneration and senility.

**William Ross Strickland** ✠ Rockport, Mo.; Marion-Sims College of Medicine, St. Louis, 1898; an Affiliate Fellow of the American Medical Association; served as postmaster and mayor; died February 9, aged 76, of cerebral hemorrhage.

**Cleve L. Sullivan,** Elmore City, Okla.; Barnes Medical College, St. Louis, 1905; member of the American Medical Association; helped organize the First State Bank of Elmore City, of which he had been director and vice president; died January 25, aged 65.

**Mark Sutphin** ✠ Huntington, W. Va., Bennett Medical College, Chicago, 1914; served in the medical corps of the American Expeditionary Forces during World War I; formerly a medical consultant for the Veterans Administration in Logan; died May 7, aged 59.

**Abraham Otto Tumen** ✠ New York; University and Bellevue Hospital Medical College, New York, 1926; on the staffs of the Harlem, Manhattan General and Mount Sinai hospitals; died February 14, aged 42, of coronary thrombosis.

**Lucas Grove Tuttle,** Springfield, Mo.; Albany (N. Y.) Medical College, 1893; died February 16, aged 88, of heart disease.

**Walter Harold Vance,** Fort Wayne, Ind.; Indiana University School of Medicine, Indianapolis, 1925; member of the American Medical Association; served as a captain in the medical corps, Army of the United States, during World War II; died February 9, aged 46, of coronary occlusion.

**Fred Chandler Vilas,** Kelso, Wash.; University of Vermont College of Medicine, Burlington, 1882; formerly postmaster of Stambaugh; died in St. John's Hospital, Longview, January 18, aged 86, of prostatic obstruction of the bladder.

**Charles L. Waddle,** Somerset, Ky.; Hospital College of Medicine, Louisville, 1903; member of the American Medical Association; died in February, aged 65, of hypertensive heart disease.

**Ezra Heber Walker,** Moab, Utah; Memphis (Tenn.) Hospital Medical College, 1911; for many years physician and surgeon for the Chesterfield Coal Company; died in a hospital at Provo May 16, aged 63, of parkinsonism.

**Patrick McHugh Walker,** Los Angeles; McGill University Faculty of Medicine, Montreal, Que., Canada, 1898; member of the American Medical Association; formerly chief division surgeon for the Great Northern Railway; died in the Good Samaritan Hospital February 25, aged 69.

**Mae Louise D. Washburn,** Wellsboro, Pa.; Southern Homeopathic Medical College, Baltimore, 1904; died January 4, aged 78, of carcinoma of the breast.

**John Thomas Watkins,** Nashville, Tenn.; Vanderbilt University School of Medicine, Nashville, 1912; first director of the venereal disease clinic of the city health department; for many years member of the staff of the Protestant Hospital; died February 27, aged 57, of pulmonary tuberculosis.

**John Samuel Wells Jr.,** Clearwater, Fla.; Rush Medical College, Chicago, 1931; found dead February 12 in Seco, Ky., aged 40.

**E. Reed Whittemore** ✠ New Haven, Conn.; Columbia University College of Physicians and Surgeons, New York, 1902; fellow of the American College of Surgeons; on the staff of the New Haven Hospital; died recently, aged 68.

**Louis Willard,** Pittsburgh; Hahnemann Medical College and Hospital of Philadelphia, 1906; member of the American Medical Association; died January 27, aged 64, of heart disease.

**John Wilson,** Bloomfield, Mo.; Washington University School of Medicine, St. Louis, 1911; served in France during World War I; died in St. Francis Hospital, Cape Girardeau, January 24, aged 60.

**Russell Wilson Wolfe,** Taylorstown, Pa.; Western Pennsylvania Medical College, Pittsburgh, 1889; died recently, aged 85, of bronchopneumonia and carcinoma of the colon.

**William Yarm,** Brooklyn; Cornell University Medical College, New York, 1909; at one time on the New York State Board of Health; attending physician at the Kingston Avenue Hospital and a member of the heart clinic of the Cumberland Street Hospital; died April 2, aged 59, of coronary thrombosis.

## DIED WHILE IN MILITARY SERVICE

**Richard Williams Cragg** ✠ Vallejo, Calif.; University of Cincinnati College of Medicine, 1931; born in Cincinnati Dec. 14, 1905; member of the American Society of Clinical Pathologists; interned at the Cincinnati General Hospital; physician at the Cincinnati Workhouse from October 1931 to October 1932, when he joined the Mayo Foundation, Rochester, Minn., as a fellow in pathology; later appointed first assistant in pathologic anatomy and surgical pathology, consulting physician in pathologic anatomy at the Mayo Clinic, instructor in pathology at the foundation and assistant professor of pathology; received the degree of master of science from the University of Minnesota in 1936; began active duty as a first lieutenant in the medical corps of the U. S. Naval Reserve on July 1, 1942; pathologist at the Naval Hospital at Corona, Calif.; assigned to duty at the Naval Advance Base Training Section at San Bruno, Calif.; went to Mare Island, where he was chief pathologist at the Naval Hospital; promoted to lieutenant commander; died February 18, aged 40, of coronary occlusion.

**Joseph George Sandler,** Ellenville, N. Y.; Yale University School of Medicine, New Haven, Conn., 1931; member of the American Medical Association; interned at the Jewish Hospital in Brooklyn; served as health officer of the town of Wawarsing; began active duty as a lieutenant in the medical corps, U. S. Naval Reserve, on April 5, 1943; served over seas in the invasions of Sicily and Africa and on the island of Eniwetok in the Pacific; died in the Hamilton Avenue Hospital, Monticello, Nov. 16, 1945, aged 38, of coronary thrombosis.

**Ignatius Zielinski** ✠ Salem, Mass.; Tufts College Medical School, Boston, 1924; interned at the Salem Hospital in Salem; for many years medical examiner of the Tenth Essex district; commissioned a lieutenant commander in the medical corps of the U. S. Naval Reserve on Nov. 21, 1942; served at the dispensary of the Boston Navy Yard and later saw duty in Hawaii; assigned as chief surgeon to Quonset subsequently; died in Fishkill, N. Y., Nov. 11, 1945, aged 45, of injuries received in an airplane crash.

# Foreign Letters

## LONDON

*(From Our Regular Correspondent)*

May 18, 1946.

### Official Investigation of Doctors' Incomes

With reference to the national health service the minister of health appointed a committee, of which nearly half were doctors, to consider what should be the range of total income of a registered medical practitioner in any publicly organized service of general medical practice, with due regard to what have been the normal financial expectations of general practice in the past, and to the desirability of maintaining in the future the proper social and economic status of general medical practice and its power to attract a suitable type of recruit to the profession. The report of the committee, which has just been published, proposes an increased expenditure on general practice "less on any particular consideration than on the importance of such practice in a publicly organized health service." The report states that general practice is the foundation on which all else is built. If its recruitment is not maintained, alike in quantity and in quality, both as against other professions and as against other branches of the medical profession, no other health service, specialist or hospital, however excellent, can make good the loss or even play successfully the part it should.

The main recommendation of the committee in respect to a publicly organized service is that the scheme should be devised to secure as far as practicable that between 40 and 50 years of age approximately three fourths of practitioners should receive incomes of more than $5,000, one half of whom should receive $6,500 or over; approximately one fourth should receive $8,000; slightly less than one tenth should receive more than $10,000 and a small proportion should receive at least $12,500. All incomes are given as net, that is after deduction of professional expenses. The recommendations are made in terms of the 1939 value of money, which was distinctly greater than the value at present.

*Incomes of General Practitioners After Deducting Professional Expenses Allowed for Income Tax Purposes*

| | Proposed Distribution Per Cent | Distribution Before 1939 Per Cent |
|---|---|---|
| Under $3,500 | 7 | 20 |
| $3,500 to 5,000 | 20 | 22.5 |
| $5,000 to 6,500 | 24 | 21 |
| $6,500 to 8,000 | 24 | 17.5 |
| $8,000 to 10,000 | 16 | 10 |
| Over $10,000 | 9 | 9 |

A table is given in the report of incomes of general practitioners in urban areas in the prewar years 1936-1938 after deducting professional expenses and covering ages 30 to 64. It shows that throughout the best years of a practitioner's working life almost 20 per cent of urban practitioners had a net income of less than $3,500 a year and over 40 per cent less than $5,000. Having regard to the length of training, to the arduousness of the general practitioner's life compared with that of other professions, to the greater danger to health, to the skill and other qualities required, and to the degree of individual responsibility, the committee unanimously held that the proportion of low incomes was too high and that the proportion of practitioners able to reach a net income of $6,500 or over was too low. The committee considered it desirable to secure a percentage spread of incomes not less favorable than that shown in the accompanying table, which refers to the age group 40-49.

The committee points out that the effect of its proposals will be that between the ages of 40 and 50 three fourths of general practitioners would have achieved a net income of over $5,000 per annum, half over $6,500, a fourth over $8,000 and slightly less than one tenth $10,000 or over. The committee is satisfied that there exists a far greater diversity of ability and effort among general practitioners than admits of remuneration by some single scale applicable to all. It anticipates that a publicly organized service will level up low incomes to a considerable extent. Any augmentation required might be provided, for example, if sufficient refresher courses could be provided by paying a bonus of, say, $500 a year to a practitioner who had attended such a course within the preceding three years or by grant toward professional expenses when they represent an abnormally high percentage of gross receipts. On the assumption that the number of persons covered by a publicly organized service will be 45 million, the committee calculates that its proposals could be realized at a cost of $3 a head. This is a considerable increase both on the capitation payments under the existing national health insurance scheme and on the total income of practitioners in the three years that ended in 1939. A rider to the report by one member of the committee, Sir Edward Fass, proposes a lower rate of remuneration than that mentioned on the ground that the earnings of a physician must be kept in proportion to those of comparable professions.

## PARIS

*(From Our Regular Correspondent)*

May 28, 1946.

### "Haptoglobin" and Its Clinical Significance

In a quantitative study of the peroxydasic power of hemoglobin, by the determination of iodine liberated in a mixture of hydroiodic acid and ethylhydroperoxide, M. Polonovsky and M. Jayle noted that the reaction increases when small quantities of blood plasma are added. The fraction of the plasma responsible for this reaction is a blood protein named "haptoglobin" by them.

Haptoglobin is increased in all infections, tuberculosis, rheumatism, malignant tumors and certain endocrine disorders. It is more responsive and more precise than the blood sedimentation test. The index of haptoglobinemia may be zero or low in newborn children or in hemolytic diseases.

### Neuroedematous Syndrome

R. Debre, J. Marie, P. Seringe and Mande describe a new disease of epidemic aspect with alteration of the general state, fever, tachycardia, edema, diffuse pain and peripheral paralysis. Recovery may occur within a few weeks, or death ensue through bulbar paralysis.

### Testosterone for Endometriomas

P. Moulonguet has obtained a cure of endometrioma by 250 mg. of testosterone per month. This method is a substitute for castration, which has been the only efficacious treatment up to now.

### Intravenous Procaine Hydrochloride

M. P. Ameuille has discussed the successful use in France of intravenous injections of 1 per cent procaine hydrochloride for asthmatic crises, pulmonary emboli, angina pectoris and chronic dyspnea.

# Marriages

DUNN HAMILTON ROW, Indianapolis, to Mrs. Alice Grace Rhodes of Washington, D. C., March 16.

JOSEPH F. KELL JR., Lawrence, Kan., to Miss Rita Claire Ryan of Lynchburg, Va., April 4.

ROBERT LEE VANN, Winston-Salem, N. C., to Miss Patricia Jane Hille, St. Louis, April 6.

# Correspondence

## MORTALITY IN PREGNANCIES COMPLICATED BY DIABETES

*To the Editor:*—In an article in THE JOURNAL Jan. 29, 1944 entitled Fetal and Neonatal Mortality in Pregnancies Complicated by Diabetes Mellitus, Miller, Hurwitz and Kuder presented evidence showing that the fetal and neonatal mortality was 20 per cent in a group of 252 infants born twenty years or less before the appearance of signs or symptoms of diabetes in their mothers. Drs. Henry Dolger and Joseph Herzstein in a communication in THE JOURNAL July 29, 1944 presented evidence which they thought failed to substantiate the results published by Miller, Hurwitz and Kuder. Drs. Dolger and Herzstein have elaborated on this evidence in a recent publication entitled The Fetal Mortality in Women During the Prediabetic Period, which appears in the *American Journal of Obstetrics and Gynecology* of March 1946.

In their recent publication those authors state that "the first five year prediabetic period revealed an increased fetal and neonatal mortality, but the preceding fifteen years was *not* [italics theirs] characterized by such a tendency." Their data show, however, a mortality of 7.5 per cent among 212 infants born during the fifteen years prior to the onset of maternal diabetes. The mortality in the nondiabetic group of 398 infants was 3.01 per cent. Assuming that the diabetic and nondiabetic groups studied by Dolger and Herzstein are comparable in all respects except in regard to diabetes, the difference between the mortality rate of 7.5 per cent for the prediabetic pregnancies is significantly higher than that of 3.01 per cent for the nondiabetic group. The chi square test applied to these two mortality rates shows a value of 6.5, indicating that the difference between the two groups is well within the range that is usually considered to be statistically significant. Furthermore, it is difficult to understand why Dolger and Herzstein attach no significance to the fact that the gross fetal and neonatal mortality rate for all their 626 prediabetic pregnancies was 6.01 per cent, when actually it is possible to demonstrate that this rate is also statistically significantly higher than that for the nondiabetic group. The chi square test applied to these two groups shows a value of 4.9.

The data presented by Dolger and Herzstein support not only the earlier findings of Miller, Hurwitz and Kuder but also the more recent studies of mine (The Effect of the Prediabetic State on the Survival of the Fetus and the Birth Weight of the Newborn Infant) reported in the *New England Journal of Medicine* **233**:376 (Sept. 27) 1945. The last mentioned study shows that the fetal and neonatal mortality rate is higher than is to be expected during the period of fifteen years preceding the onset of diabetes even though the diabetic syndrome is not established until after the mothers have passed their fortieth birthday.

The conclusions reached by Dolger and Herzstein are of doubtful significance, since they have failed to make clear whether or not the data on their control group of cases were obtained in the same manner as those in the experimental group. Fetal and neonatal mortality rates obtained by personally interviewing women several years after the births of their infants are not to be compared, for instance, to similar rates based on hospital deliveries in which every infant weighing over 1,000 Gm. at birth is recorded and counted. Furthermore, in their recent publication Dolger and Herzstein do not define either the term "fetal" or "neonatal" death, thus making it difficult to compare their data with those reported by other investigators.

HERBERT C. MILLER, M.D., Kansas City, Kan.

## THE RADIATION TREATMENT OF GIANT FOLLICULAR LYMPHADENOPATHY

*To the Editor:*—Dr. Ovid O. Meyer, in a communication published in THE JOURNAL April 13, questions the validity of your editorial expression that giant follicular lymphadenopathy "is curable by mild x-ray therapy," stating with rather broad inclusiveness, it seems to me, that "this is incorrect in the opinion of most students of the disease." However this may be, the fact remains that in the comparatively short interval of twenty-one years during which radiation has been employed in the treatment of giant follicular lymphadenopathy I myself have encountered 5 histologically proved cases in which this form of therapy was followed by apparent cures for periods of 3, 4½, 5, 9½ and 12 years. Another patient with histologically proved giant follicular lymphadenopathy survived 9 years without treatment of any sort directed against the enlarged lymph nodes, the final microscopic examination having been made 10 days before death from lobar pneumonia.

In giant follicular lymphadenopathy the quick response of the lymph nodes to mild roentgen therapy is so impressive that if recurrence is noted and readjustment of the enlarged nodes is delayed or incomplete or both, and larger doses are required, one would seem to be justified in suspecting that the condition has undergone some form of mutation such as transformation into polymorphous cell follicular sarcoma or into Hodgkin's disease, both of which have been described and both of which are radioresistant. It is entirely possible that some, perhaps many, of those cases which have been regarded as recalcitrant examples of giant follicular lymphadenopathy were in reality mutations of the sort indicated and therefore less amenable to radiation therapy. In other words, before one condemns the radiation treatment of giant follicular lymphadenopathy one should be certain that the diagnosis is correct.

DOUGLAS SYMMERS, M.D., New York.

# Bureau of Investigation

## SOME MISCELLANEOUS MEDICAL FRAUDS

### A Variety of Schemes Debarred from the Mails

Fraud orders issued by the Post Office Department have frequently been the subject of extensive articles by the Bureau of Investigation in these pages of THE JOURNAL. One such order is abstracted here:

**Phurcerol Company.**—This Chicago concern is reported to have had one Charles L. Cremieux as president and superintendent, and an Irene Drew as vice-president and general manager. Through the mails it sold Phurcerol as an external remedy for "arthritis, rheumatism, muscular aches and pains," which nostrum was described on the company's letterhead as "The Wonder Sulphur For Arthritis." According to federal investigators, the business was started about July 1941, and reached its clientele through newspaper advertising in small cities and towns. Those who replied received a form-letter and a descriptive pamphlet. The former claimed that the product had been "carefully tried out on a large number of stubborn cases" and "the results have been truly amazing." It went on to claim that "all those who were given treatment were aware of improvement, and in some cases where the patients had been bed ridden, they found themselves able to walk again." There was the further claim: "Phurcerol has been approved by the U. S. Food & Drug Administration"! Finally the concern was ordered by the Post Office Department to show cause why it should not be debarred from the mails on the ground that it conducted a fraud. At the hearing a government chemist testified that his analysis of a specimen of Phurcerol obtained through test correspondence showed it to be a yellowish-red liquid consisting of a hydroalcoholic solution of about 1 per cent isopropyl alcohol and glycerin, with 11 grams of potassium sulfide in the four-ounce bottle, and some flavoring. Another government witness, a Senior Medical Officer for the Food and Drug Administration, testified that in the treatment of arthritis, complete diagnostic measures should be taken to determine the type of the disease and any existing complications. He showed that there is no one course of treatment for all the various types of arthritis and their complications, and hence each sufferer requires

individualized therapy. He further showed that the potassium sulfide in the mixture was the only drug present in sufficient strength to have any effect worth considering, and that the sulfur or sulfides present could not be absorbed into the skin to any appreciable extent, and even if they were, they would be of no value to the system. His final testimony was that he could find no evidence in the files of the Food and Drug Administration that that agency had approved Phurcerol, and that, on the contrary, it had notified the defendants by letter "that this preparation should not be considered as a good remedy or an effective treatment for arthritis and rheumatism, and that labeling it as such would be considered by the officials to be misbranding under the Food, Drug and Cosmetics Act." No defense was offered by the respondents, who neither appeared at the hearing nor were represented by counsel, though the latter did declare in a letter to the Post Office Department that his clients had made no extensive progress in marketing Phurcerol and hence had discontinued the advertising and sale of it through the mails. Since the charges were found to be sustained by the evidence, a fraud order was recommended, and this was issued on June 8, 1944, against the Phurcerol Company, Irene Drew, C. Cremieux and their officers and agents.

## NEW NAMES FOR OLD SWINDLES

### Mail-Order Defrauders Are Also Repeaters

Fraud orders issued by the United States Post Office are really effective—so far as the trade styles and names used at the time of the order are concerned. Circumvention therefore requires the use of new trade styles and names—but this fortunately results in the issuance of supplemental orders by the Post Office Department as indicated in the following abstract:

**Hall-Dean Home Health Association or Health Service.**—This outfit at Boulder, Colo., appears to have been an outgrowth of the Fisheropathic College Association of Denver, which was debarred from the mails by a Post Office fraud order in 1933, as reported in a lengthy article in this department of The Journal October 28, that year. The original outfit was run by a George B. Fisher, his sister and his son. Denver newspapers reported in 1911 that George B. Fisher had been found guilty in the federal courts of sending obscene matter through the mails to the "wives of two prominent Denver business men," and that the judge before whom Fisher was tried gave him a scathing arraignment, stating that "a man who was guilty of the practices of which Fisher had been convicted was of the lowest species of humanity and not fit to mingle with decent and respectable people." The papers further reported that at some prior time Fisher had been charged with defrauding an aged and infirm woman out of $15,000 in notes and securities, and forced by a court to restore them. In 1923 two of Fisher's nostrums, "Uterine Tonic" and "Kidney Food," were found to be misbranded under the National Food and Drugs Act, the former because it was fraudulently represented as an effective cure for "lack of passion," cancer of the uterus, gonorrhea and some other things. His nostrums included several others, among them "After Dinner Gems" and "Uterine Tonic Knowledge," which also figure in the present case. Early in 1944 the Post Office Department obtained evidence that a Boulder, Colo., outfit operating as Hall-Dean Home Health Association, Hall-Dean Health Service, or just plain Hall-Dean, was promoting through the mails a so-called system of treatment called synonymously "Deanopathy" and "Fisheropathy," with one George H. Hall as chief promoter, and apparently had revived the old business of the Fisheropathic College Association, which enterprise the Post Office had declared a fraud, as mentioned above. The new concern was representing its After Dinner Gems as a highly effective remedy for appendicitis, hay fever, asthma, catarrh, bronchitis, whooping cough, ptomaine poisoning, and "many other" diseases and ailments, such as all stomach troubles, including cancer. Further, it was claiming that Fisher's Uterine Tonic Knowledge was a highly effective remedy for even "the most aggravated cases" of female disorders, that it would remove "foreign growths" and would eliminate the necessity for operations in such conditions. The so-called system of "Deanopathy" or "Fisheropathy" was represented as a highly effective preventive, restorative and treatment for persons afflicted with paralysis, pneumonia, wasting of arterial, muscular or nerve energy, lost sexual power, weakened spine, fallen arches, baldness, dropsy, "consumption," cancers, and other disorders too numerous to mention. When Hall was directed to appear at a hearing and show cause why a fraud order should not be issued against his business, a government chemist testified that the "Gems" consisted of brown-coated tablets containing sodium chloride, talc, plant material (apparently senna and charcoal), phosphorus pentoxide and traces of capsicum, oil of peppermint, potassium, calcium and nitrates. The Uterine Tonic Knowledge, he testified, consisted of a small bottle of brown liquid and a number of empty capsules, in which the medicine was to be taken, and the mixture contained over 68 per cent of water, with smaller amounts of glycerin, ammonium carbonate, iodine, a trace of potassium, and some coloring matter. A physician testifying as an expert medical witness for the government discussed the ailments for which these nostrums were promoted, showing that the mixtures would be of little, if any, value in the conditions cited. Neither George H. Hall nor his counsel attended the hearing, though they did send communications to the Post Office Department, declaring that their claims were fully warranted. Since their contentions were without weight and did not in any sense controvert the testimony presented against the outfit at the hearing, a fraud order was issued Sept. 15, 1944, debarring Hall-Dean, Hall-Dean Health Service and Hall-Dean Home Health Association from further use of the mails.

# Bureau of Legal Medicine and Legislation

## MEDICOLEGAL ABSTRACTS

**Collection Agencies: Corporation to Collect Hospital Bills — Illegal Practice of Law.** — The plaintiff, Hospital Credit Exchange, Inc., sued to recover the balance of a bill for hospital services rendered to the defendant's wife. The case was heard on plaintiff's motion for summary judgment and defendant's motion for a dismissal of the complaint in the municipal court of the city of New York, borough of Manhattan, first district.

The plaintiff, Hospital Credit Exchange, Inc., was incorporated under the Membership Corporations Law and its certificate of incorporation was approved by a justice of the New York Supreme Court in March 1939. As stated by its certificate of incorporation, its purposes were, among others, "To render services to member hospitals in connection with obtaining payment for care received by patients therein." Pursuant to such general purposes it appeared that the plaintiff had made arrangements with a large number of charitable hospitals in the city and vicinity of New York under which these hospitals refer to plaintiff for collection bills which they themselves have been unable to collect; these claims are generally, although not always, assigned to plaintiff by written instruments of assignment; plaintiff in its own name sends collection letters to the debtors requesting payment and stating that if the bill remains unpaid it will be turned over to an attorney for collection; if no results are obtained collection letters are then sent by an attorney who is employed by the plaintiff on a regular salaried basis; ultimately suit is instituted by the plaintiff in its own name; usually before suit is begun the plaintiff, which also employs a staff of so-called field workers, attempts to collect the debt by sending one of these workers to call personally on the debtor. The present case came to the plaintiff in accordance with this procedure, and this suit was instituted by the salaried attorney for the plaintiff and in the name of the plaintiff as assignee of a charitable hospital.

It was the defendant's primary contention that the plaintiff, in operating as described, was engaged in the practice of law contrary to public policy and in violation of the penal law. The court said that the plaintiff was conducting the business of an ordinary collection agency; that it solicited claims and took assignments of such claims for the purpose of bringing suit; and that after effecting collection by suit or otherwise it retained for itself a percentage of the amount collected out of which it paid its office expenses and its salaried employees, including the attorney. Section 280 of the penal law expressly forbids any corporation from practicing "as an attorney-at-law" and further provides: "No corporation . . . shall . . . solicit any claim or demand, or take an assignment thereof, for the purpose of representing any person in the pursuit of any civil remedy, . . ." Section 275 of the penal law provides, in part, "No person or co-partnership, engaged directly or indirectly in the business of collection and adjustment of claims, . . . shall take an assignment of, or be in any manner interested in, buying or taking an assignment of a . . . book debt or other thing in action, or any claim or demand, with the intent or for the purpose of bringing an action or proceeding thereon; . . ."

The plaintiff contended that it is exempted from these provisions by virtue of a 1941 amendment to section 275 of the penal law which provides: "Nothing herein contained shall affect any assignment heretofore or hereafter taken . . . by any corporation organized for religious, benevolent or charitable purposes." The plaintiff argued that it was a charitable corporation. In my opinion, said the court, the plaintiff is not a charitable corporation. It is true that its only clients or customers are charitable hospitals. However, the fact that for a fee it serves only charitable institutions does not make it a charitable corporation. The further fact that, after paying salaries to employees and commissions on collections to the aforementioned field workers, it distributes its profits to the charitable institutions which it serves, does not make it a chari-

table corporation. Furthermore, said the court, this amendment was not intended to authorize charitable corporations to practice law. If the legislature had intended to confer on charitable corporations the right to practice law it would have so provided in explicit terms. It is not to be inferred from anything contained in the act as amended that so radical a change in public policy was intended to be effected.

The plaintiff also insisted that it was exempted by the provisions of section 280 of the penal law which provides that such section shall not "apply to organizations organized for benevolent or charitable purposes, or for the purpose of assisting persons without means in the pursuit of any civil remedy, whose existence, organization or incorporation may be approved by the appellate division of the supreme court of the department in which the principal office of such corporation or voluntary association may be located." I read that section, said the court, as meaning that any organization "organized for benevolent or charitable purposes" which desires to be excepted from the operation of section 280 must be approved by the appellate division of the Supreme Court of the department in which its principal office is located. Plaintiff would read the requirement for such approval as applicable only to organizations having "the purpose of assisting persons without means in the pursuit of any civil remedy." There is no good reason, the court concluded, for distinguishing between the two types of organizations so that one requires approval and the other does not.

In conclusion the court said that, although the motives of the people who organized the plaintiff are commendable, and although the many persons who have come to its aid merit the respect of this court, the plaintiff must nevertheless yield to the public policy which interdicts the practice of law by lay agencies. That policy springs from a vital public necessity. Balancing the conveniences, and weighing the respective public interests involved, I am constrained to the conclusion that to tolerate the practice of law by this plaintiff—and the plaintiff is undoubtedly practicing law—is to set a most dangerous precedent and to sanction a clear, though well intentioned, violation of statutes which are as specific as they could have been made.

Accordingly the plaintiff's motion for summary judgment was denied and judgment was entered in favor of the defendant dismissing the complaint.—*Hospital Credit Exchange, Inc., v. Shapiro, 59 N. Y. S. (2d) 812 (N. Y., 1946).*

**Medical Practice Acts: Use of "M.D.," Drugs and Hemovitameter by Naturopath.**—In a proceeding before the State Board of Medical Registration and Examination the defendant's license to practice naturopathy was revoked. On defendant's appeal to the circuit court, the board's order was reversed, so the board appealed to the Supreme Court of Indiana.

The defendant, a licensed naturopath, advertised himself as "Successor to C. R. Perdue, M.D., Dermatologist and Plastic Surgeon," and as "a physician of wide experience and well qualified to administer any form of treatment which may be needed." He also asserted that, among other degrees, he had a degree of "Doctor of Medicine." He prescribed pills, salves and other medicines and used a machine which he called a hemovitameter and about which he testified "The interior of a hemovitameter is just a lot of wires and different circuits to different contacts and connections. There is at least one radio tube in it. There are a number of resistance coils." This machine, he said, worked much like a radio. The operator would contact with a little fibroid plate under which there are two coils in which the magnetism is built up to the point at which it causes the fingers to stick lightly to that plate. Then by measuring the amount he can turn another dial which tunes in to that same circuit a blocking condenser until that magnetism is completely blocked out. By that means the dials are read as being the intensity of the disease of the patient's body for that particular setting. The detection of magnetism with one's fingers, the defendant explained, is by means of a traction through the plate to the coils underneath, the plate must be rubbed lightly, and it takes a lot of practice to operate the machine efficiently. After using this machine, the defendant told one patient on her first visit that she was not addicted to tobacco and that she had catarrh and a cancer of the colon. An engineer testified "It is impossible to build any machine dealing in frequencies or vibrations that will pick up vibrations regardless of their source that does not fall within the known spectrum from zero to three hundred million cycles per second. All those frequencies can be detected and measured with regular equipment. They cannot be detected by the human hand outside of those frequencies which cause burns, or light, or other physical manifestations observable to sight. It is absolutely impossible for the human hand to detect magnetism in any form simply because basically and fundamentally magnetism has no effect except on a very few metals and minerals."

The Supreme Court said that misrepresenting himself as entitled to practice medicine, prescribing drugs and medicines not permitted by his license, and misrepresenting the powers of his machine to credulous and unsuspecting sufferers who put themselves in his hands on the assumption that, from his being permitted to practice, he was skilled in diagnosis and treatment of diseases, was, of course, grossly immoral. The circuit court, on appeal, had only to determine whether or not the board conformed to the statutory procedural method and whether or not its decision was supported by substantial evidence. From the undisputed evidence, the Supreme Court concluded that the board's decision was substantially supported. Accordingly the judgment for the defendant was reversed and an order entered revoking the defendant's license.—*State Board of Medical Registration and Examination v. Scherer, 46 N. E. (2d) 602 (Ind., 1943).*

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# Medical Examinations and Licensure

## COMING EXAMINATIONS AND MEETINGS

### BOARDS OF MEDICAL EXAMINERS
### BOARDS OF EXAMINERS IN THE BASIC SCIENCES

Examinations of the boards of medical examiners and boards of examiners in the basic sciences were published in THE JOURNAL, June 15, page 629.

### NATIONAL BOARD OF MEDICAL EXAMINERS

NATIONAL BOARD OF MEDICAL EXAMINERS: *Part I.* Various centers, Sept. 30-Oct. 2. Final date for filing application is Sept. 1. *Part II.* Dec. 16-17. Sec., Mr. Everett S. Elwood, 225 S. 15th St., Philadelphia 2.

### EXAMINING BOARDS IN SPECIALTIES

AMERICAN BOARD OF ANESTHESIOLOGY: *Oral.* New York, Oct. 9-14. Sec., Dr. Paul M. Wood, 745 Fifth Ave., New York 22.

AMERICAN BOARD OF DERMATOLOGY & SYPHILOLOGY: *Written.* Various centers, Oct. 7. Final date for filing application is Aug. 15. *Oral.* Cleveland, Dec. 5-7. Sec., Dr. George M. Lewis, 66 E. 66th St., New York 21.

AMERICAN BOARD OF INTERNAL MEDICINE: *Written.* Oct. 21. Final date for filing application is July 1. Asst. Sec., Dr. W. A. Werrell, 1 W. Main St., Madison 3, Wis.

AMERICAN BOARD OF OBSTETRICS & GYNECOLOGY: *Written. All Groups. Part I.* Various centers, Feb. 7. Final date for filing application is Nov. 1. Sec., Dr. Paul Titus, 1015 Highland Bldg., Pittsburgh 6.

AMERICAN BOARD OF OPHTHALMOLOGY: *Oral. All Groups. Parts I and II.* New York, June 1947. Final date for filing application is Dec. 1. Chicago, October 1947. Final date for filing application is March 1. Sec., Dr. S. J. Beach, 56 Ivie Rd., Cape Cottage, Me.

AMERICAN BOARD OF ORTHOPAEDIC SURGERY: *Part II. Oral.* Chicago, January. Final date for filing application is Nov. 1. Sec., Dr. Guy A. Caldwell, 1136 W. Sixth St., Los Angeles 14.

AMERICAN BOARD OF OTOLARYNGOLOGY: *Oral.* Chicago, Oct. 8-12. Sec., Dr. D. M. Lierle, University Hospitals, Iowa City, Ia.

AMERICAN BOARD OF PEDIATRICS: *Oral.* San Francisco, July 1-5. Sec., Dr. Lee F. Hill, 3309 Forest Ave., Des Moines, Ia.

AMERICAN BOARD OF PSYCHIATRY & NEUROLOGY: New York, December. Final date for filing application is Sept. 30. Sec., Dr. Walter Freeman, 1028 Connecticut Ave. N.W., Washington, D. C.

AMERICAN BOARD OF RADIOLOGY: Chicago, Nov. 27 to Dec. 1. Final date for filing application is Sept. 1. Sec., Dr. B. R. Kirklin, Mayo Clinic, Rochester, Minn.

AMERICAN BOARD OF SURGERY: *Written. Part I.* Various centers, October. Final date for filing application is July 1. Sec., Dr. J. S. Rodman, 225 S. 15th St., Philadelphia 2.

AMERICAN BOARD OF UROLOGY: *Oral.* Chicago, February 1947. Final date for filing application is Nov. 15. Sec., Dr. Gilbert J. Thomas, 1409 Willow St., Minneapolis 4.

# Current Medical Literature

## AMERICAN

The Association library lends periodicals to members of the Association and to individual subscribers in continental United States and Canada for a period of three days. Three journals may be borrowed at a time. Periodicals are available from 1936 to date. Requests for issues of earlier date cannot be filled. Requests should be accompanied with stamps to cover postage (6 cents if one and 18 cents if three periodicals are requested). Periodicals published by the American Medical Association are not available for lending but can be supplied on purchase order. Reprints as a rule are the property of authors and can be obtained for permanent possession only from them.

Titles marked with an asterisk (*) are abstracted below.

### Alabama State Medical Assn. Journal, Montgomery

**15**:253-280 (March) 1946

Bronchoscopy and Esophagoscopy in General Medicine. G. E. Fisher. —p. 253.
Traumatic Carotid Sinus Syndrome Followed by Idiopathic Epilepsy. C. E. Johnson Jr.—p. 255.
Cultural Examination for Mycobacterium Tuberculosis: Results in a Public Health Laboratory Over a Four Year Period. N. K. Whitfield and S. R. Damon.—p. 259.
Recent Progress in Planned Parenthood. Eva F. Dodge.—p. 262.
Continuous Caudal Anesthesia: Record of Experience in 90 Obstetric Cases. H. L. Rogers.—p. 264.

### American Journal of Medical Sciences, Philadelphia

**211**:257-384 (March) 1946

Invasive Character of Cancer Growth. D. R. Coman.—p. 257.
Multiple Pulmonary Hemangiomata. P. T. Makler and D. Zion.—p. 261.
*Effect of Streptomycin on Experimental Brucellosis in Guinea Pigs. I. Live, F. G. Sperling and E. L. Stubbs.—p. 267.
Treatment of Acute Rheumatic Fever with Large Doses of Sodium Salicylate, with Special Reference to Dose Management and Toxic Manifestations. B. V. Jager and R. Alway.—p. 273.
Effect of Sodium Bicarbonate on Therapeutic Effectiveness of Sulfadiazine in Mice. A. Kornberg.—p. 286.
Penicillin in Acute Nephritis in Children. Susanta Sen.—p. 289.
*Penicillin Therapy in Ulcerative Colitis: Preliminary Report. B. B. Korostoff and H. E. King.—p. 293.
Combined Penicillin and Sulfadiazine Therapy in Pneumococcic Pneumonia. M. F. Collen, A. L. Sellers and E. C. Kast.—p. 299.
Influence of Sulfanilamide Therapy on Course of Acute Glomerulonephritis in Children. M. Rapoport, M. I. Rubin and A. D. Waltz. —p. 307.
Treatment of Temporary Renal Insufficiency (Uremia) by Peritoneal Lavage. W. E. Abbott and P. Shea.—p. 312.
Relative Efficiency of Quinacrine (Atabrine) and Quinine in Treatment of Acute Attacks of Vivax Malaria. H. Most and J. M. Hayman Jr. —p. 320.
Qualitative Changes in Fibrinogen Which Influence Erythrocyte Sedimentation Rate and Clot Retraction Time. I. R. Morrison.—p. 325.
Persistent Ventricular Bigeminal Rhythm in Apparently Normal Hearts. W. Sensenbach and R. M. Buie Jr.—p. 332.
Functional Paroxysmal Auricular Fibrillation. A. M. Master and H. Eichert.—p. 336.
Effect of Sodium Salicylate on Sedimentation Rate of Erythrocytes in Vivo. F. Homburger.—p. 346.
Serologic Types of Bacteria as Epidemiologic Principle. W. L. Aycock and G. E. Foley.—p. 350.
Spreading Factors and Bacterial Infection. D. S. Fleming.—p. 374.

**Streptomycin in Experimental Brucellosis.**—Live and his co-workers found that 5,000 units of streptomycin daily given to guinea pigs in five doses had a bacteriostatic effect on Brucella abortus. Four of 9 animals in which treatment was begun on the day of infection and was continued for twenty-seven days, and 4 of 10 animals in which treatment was begun one week after infection and was continued for twenty days yielded negative cultures on necropsy one day after cessation of treatment. Of the guinea pigs from which cultures were made eight days after discontinuation of therapy, 3 animals from the group of 10 in which treatment was begun on the day of infection were still negative, while all the guinea pigs in which treatment was begun one week after infection yielded Brucella abortus. Treatment of guinea pigs with 20,000 units of streptomycin daily, divided into six doses, seemed to eliminate the infection from most of the animals. The treatment was begun one week after infection and was continued for twenty-four days. Necropsy of 17 animals one day after cessation of therapy revealed that 4 were positive on cultures, necropsy of 10 animals eight days after cessation of treatment revealed that 2 were positive on cultures, and necropsy of 8 guinea pigs fifteen days after discontinuation of therapy revealed that only 1 animal yielded Brucella on cultures. Following a single subcutaneous injection of streptomycin, the blood serum levels are highest soon after injection of the drug. In guinea pigs injected with 1,000 units no detectable concentration of streptomycin was found in the blood serum after four hours, and in those injected with 5,000 units no detectable concentration of streptomycin was found in the blood serum after six hours.

**Penicillin in Ulcerative Colitis.**—Korostoff and King administered penicillin in doses of 30,000 units intramuscularly every three hours for four or five days up to a total of 1,200,000 units to 5 patients with ulcerative colitis. The disappearance of rectal ulcerations in each case within one week after the completion of one course of penicillin was the prominent feature. The subjective symptoms and the character of the stool improved in each instance. The results in these few cases indicate that adequate penicillin therapy may be of considerable value in the treatment or control of some cases of chronic ulcerative colitis.

### American Journal of Tropical Medicine, Baltimore

**26**:151-256 (March) 1946

Medical Research in Postwar World. R. E. Dyer.—p. 151.
Two New Species of Rat Mites (Neoschongastia Spp.) From Focus of Scrub Typhus on Mindoro, Philippine Islands. C. B. Philip and T. E. Woodward.—p. 157.
Clinical and Laboratory Variation of Virulence in Scrub Typhus. E. N. Irons.—p. 165.
Experimental Studies with Bullis Fever. M. Pollard, H. R. Livesay, D. J. Wilson and J. C. Woodland.—p. 175.
Neurotropic Virus Isolated from Aedes Mosquitoes Caught in Semliki Forest. K. C. Smithburn, A. J. Haddow and A. P. Mahaffy.—p. 189.
Medical Shock in Pathogenesis of Algid Malaria. B. H. Kean and C. E. Taylor.—p. 209.
Outline for Teaching Mosquito Stomach and Salivary Gland Dissection. G. W. Hunter, T. H. Weller and W. G. Jahnes Jr.—p. 221.
Tsutsugamushi Disease (Scrub or Mite-Borne Typhus) in Philippine Islands During American Reoccupation in 1944-1945. C. B. Philip, T. E. Woodward and R. R. Sullivan.—p. 229.
Contribution to Knowledge of Bionomics of Common North American Chigger Eutrombicula Alfreddugesi (Oudemans), with Description of Rapid Collecting Method. R. W. Williams.—p. 243.
Method of Rearing Chigger Mites (Acarina, Trombiculinae). C. D. Michener.—p. 251.

### Annals of Surgery, Philadelphia

**123**:321-480 (March) 1946

Battle Wounds of Thoracic Cavity. J. Johnson.—p. 321.
*"Wet Lung" in War Casualties. L. A. Brewer, B. Burbank, P. C. Samson and C. A. Schiff.—p. 343.
Penetrating Wounds of Chest. J. Burke and T. T. Jacobs.—p. 363.
Thoracic Gastric Cyst. A. R. Valle and M. L. White Jr.—p. 377.
Results Following Bands and Ligatures on Human Internal Carotid Artery. W. E. Dandy.—p. 384.
Gastric Retention After Posterior Gastroenterostomy for Duodenal Ulcer: Prevention and Treatment. H. K. Gray and W. S. Sharpe.—p. 397.
The So-Called "Dumping Syndrome" After Subtotal Gastrectomy: Clinical Study. M. D. Custer Jr., H. R. Butt and J. M. Waugh.—p. 410.
Postappendectomy Insterstitial Inguinal Hernia. H. C. Fisher.—p. 419.
Aneurysm of Hepatic Artery. W. L. McNamar, L. A. Baker and K. Costich.—p. 427.
Reflex Vasodilatation in Tubed Pedicle Skin Grafts. S. Gordon and R. F. Warren.—p. 436.
Rhabdomyosarcoma of Skeletal Muscles. A. P. Stout.—p. 447.
Supracondylar Amputations: Survey. M. J. Tobias.—p. 473.

**"Wet Lung" in War Casualties.**—Experience gained in treating 770 chest casualties and thoracic complications that arose in over 3,000 other casualties demonstrated to Brewer and his associates the importance of "wet lung." Wet lung promotes anoxia and paves the way for pulmonary complications. Abnormal amounts of mucoid secretions or blood from intrapulmonary hemorrhage may be present. Pulmonary trauma, increased respiratory effort, tracheal obstruction and anoxia are factors which favor the escape of fluid from the pulmonary capillaries into the alveoli and bronchial radicles. Blast injuries of the lung are known to produce hemorrhage in the terminal divisions of the pulmonary tree and may be factors in the production of alveolar transudates. In the late stages of shock blood plasma escapes into the tissue spaces. One of the most important signs of wet lung is an almost constant "wet cough."

Physical examination reveals dyspnea and bronchial rales. Every patient with a chest wound or a severe abdominal or brain injury must be regarded as a candidate for the development of wet lung. If the patient does not clear the bronchial tree by coughing, additional measures must be employed. The abolishment of painful and other stimuli arising in the chest wall and parietal pleura by nerve block may be all that is needed for clearing the pulmonary tree. Blocking of the intercostal nerves had made strapping of the thorax unnecessary. If the patient does not improve, or if there is evidence of inadequate raising of sputum, mechanical aspiration of the bronchial tree is resorted to. In bronchial obstruction recurring in spite of repeated tracheobronchial aspirations, bronchoscopy is preferred. The escape of plasma fluid into the alveoli and branches of the bronchial tree presents a problem demanding positive pressure oxygen therapy, but excessive pressures must be avoided.

## Archives of Neurology and Psychiatry, Chicago

**55**:171-298 (March) 1946

Importance of Neural Fibroblasts in Regeneration of Nerve. D. Denny-Brown.—p. 171.
Vasoparalysis and Vasothrombosis of Brain in Infancy and in Early Childhood. I. Mark Scheinker.—p. 216.
Divergence Paralysis Associated with Tumor of Brain. N. Savitsky and M. J. Madonick.—p. 232.
Combat Neuroses: Development of Combat Exhaustion. R. L. Swank and W. E. Marchand.—p. 236.
Neurofibromatosis with Defect in Wall of Orbit: Report of 5 Cases. W. T. Peyton and D. R. Simmons.—p. 248.

## Archives of Otolaryngology, Chicago

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Testing Hearing of Young Children. E. Froeschels.—p. 93.
*Treatment of Acute Pharyngeal Infections by Insufflation of Sulfanilamide Powder. J. L. Goldman and W. B. Kiesewetter.—p. 99.
Xanthoma of Lipoid Granuloma of Temporal Bone (Hand-Christian-Schüller Syndrome). M. A. Glatt.—p. 110.
Interesting Lesions of the Tongue. R. A. Sage.—p. 122.

**Insufflation of Sulfanilamide Powder in Pharyngeal Infections.**—Goldman and Kiesewetter present observations on the first 69 patients treated for acute tonsillitis, Vincent's ulcerative tonsillitis and acute pharyngitis by the local insufflation of sulfanilamide powder. Early in the series the powder was insufflated once a day. At present, whenever possible, the powder is administered twice a day. Fifty-four patients treated by other currently accepted methods served as controls. The average length of time required for clinical cure to be obtained was 1.8 days shorter for the patients with acute tonsillitis who were treated with sulfanilamide powder than for the control series, and 1.7 days shorter for the patients with Vincent's ulcerative tonsillitis who were similarly treated than for the control series. Sulfanilamide insufflations appeared effective for 9 patients with acute pharyngitis. The method of insufflation of sulfanilamide powder is simple and particularly suitable for use in the treatment of military personnel. The amount of the powder administered at each insufflation was about 5 grains (0.32 Gm.). In the cases of Vincent's ulcerative tonsillitis the powder remained in contact with the ulcer for as long as three hours after insufflation. The blood of 16 patients was examined for sulfanilamide; none had a detectable amount. Streptococcus hemolyticus (beta) was the principal microorganism in acute tonsillitis. It was isolated from the tonsils of 31 of the 64 patients with acute tonsillitis. Fusiform bacilli and Vincent's spirilla were demonstrated in smears of material from the throats of 49 of the 51 patients with ulcerative tonsillitis. Fifteen of 22 patients whose throats were studied bacteriologically were shown to harbor in addition pyogenic micro-organisms.

## Bulletin New York Academy of Medicine, New York

**22**:113-166 (March) 1946

Inaugural Address. G. Baehr.—p. 115.
Intravenous Histamine in Treatment of Migraine. W. A. Thomas and S. Butler.—p. 125.
Psychiatry in a General Hospital. S. Cobb.—p. 137.
Brucellosis: Problems of Diagnosis and Treatment. H. J. Harris.—p. 147.

## California and Western Medicine, San Francisco

**64**:63-114 (Feb.) 1946

Malpractice Suits—The Rising Tide. L. J. Regan.—p. 69.
Heparin and Dicumarol—Anticoagulants: Their Prophylactic and Therapeutic Uses. P. M. Aggeler.—p. 71.
Volvulus of Cecum with Left Sided Colon: Report of Case. J. H. Brady.—p. 77.
Rupture of Urethra and Impassable Stricture of Urethra. T. E. Gibson.—p. 79.

**64**:115-164 (March) 1946

California State Department of Public Health: Its Administrative Organization. W. L. Halverson.—p. 121.
Typhoid Fever Outbreak Traced to Cream Filled Pastries. R. Frantz and C. V. Mason.—p. 123.
Corneal Transplantation: Report of Case. C. H. Albaugh.—p. 125.
Deafness—Modern Approach to Its Treatment. W. D. Currier.—p. 126.
Congenital Atresia of Esophagus with Tracheoesophageal Fistula. H. A. Keener and R. C. Hickey.—p. 128.
Calcified True Aneurysm of Left Renal Artery. J. P. Brady and J. S. Hanten.—p. 131.

## Gastroenterology, Baltimore

**6**:83-170 (Feb.) 1946

Total Solids, Fat and Nitrogen in Feces: I. Study of Normal Persons and of Patients with Duodenal Ulcer on Test Diet Containing Large Amounts of Fat. E. E. Wollaeger, M. W. Comfort, J. F. Weir and A. E. Osterberg.—p. 83.
Id.: II. Study of Persons Who Had Undergone Partial Gastrectomy with Anastomosis of Entire Cut End of Stomach and Jejunum (Polya Anastomosis). E. E. Wollaeger, M. W. Comfort, J. F. Weir and A. E. Osterberg.—p. 93.
Gastroscopic Study Following Outbreak of Food Poisoning. I. R. Schwartz.—p. 105.
Review of Literature on Roentgenology of Gastrointestinal Tract for Year 1944. Eva L. Gilbertson and B. R. Kirklin.—p. 112.
Curling's Ulcer in Experimental Burns: II. Effect of Penicillin Therapy: Correlation of Observations, with Other Recent Evidence Regarding Pathogenesis of Peptic Ulcer. F. W. Hartman.—p. 130.
Frequency of "Peptic" Ulcers in Protein Deficient Dogs. Tsan-Wen Li and S. Freeman.—p. 140.
Attempt to Prevent Histamine Induced Ulcers in Dogs by Administration of Enterogastrone Concentrates. M. I. Grossman, D. F. Dutton and A. C. Ivy.—p. 145.

## Journal Industrial Hygiene & Toxicology, Baltimore

**28**:29-50 (March) 1946

Atmospheric Concentrations of Fluorides in Aluminum Reduction Plants. C. D. Yaffe.—p. 29.
Method for Determination of Iron in Welding Fume Samples. R. G. Keenan and Bettie L. Minderman.—p. 32.
Nitrogen Dioxide: Rate of Oxidation of Nitric Oxide and Its Bearing on Nitrogen Dioxide Content of Electric Arc Fumes. H. B. Elkins.—p. 37.
Comparison of Chronic Toxicity of Triethylene Glycol with That of Diethylene Glycol. O. Garth Fitzhugh and A. A. Nelson.—p. 40.
Lead Intoxication by Inhalation. L. H. Cotter.—p. 44.
2,4 Dinitrophenol Poisoning: Case Report. J. B. Gisclard and M. M. Woodward.—p. 47.
Chromates in Animal Nutrition. W. G. Gross and V. G. Heller.—p. 52.

## New England Journal of Medicine, Boston

**234**:241-278 (Feb. 21) 1946

*Transdiaphragmatic Resection of Vagus Nerves for Peptic Ulcer. F. D. Moore, W. P. Chapman, M. D. Schulz and C. M. Jones.—p. 241.
Interview Method for Obtaining Personal Histories. C. W. Heath.—p. 251.
Atropine Poisoning: Report of Case, with Recovery after Ingestion of 1 Gram. E. Alexander Jr., D. P. Morris and R. L. Eslick.—p. 258.
Symposium on Medical Sociology: Minority Views on Improving Medical Care. A. M. Butler.—p. 260.
Media Necrosis Aortica Cystica, with Rupture of Aorta into Pericardium.—p. 270.
Calcareous Aortic Stenosis.—p. 272.

**Transdiaphragmatic Resection of Vagus Nerve for Peptic Ulcer.**—In their transthoracic transdiaphragmatic resection, which Moore and his associates have performed on 15 patients, sizable portions of both vagus nerves are resected and steps are taken to avoid regeneration. The procedure appears to be a potent weapon in dealing with peptic ulceration, as judged by the clinical results in the early follow-up. The final evaluation of this method must await the passing of time and study of the patients in whom it has been employed. Patients who have had other surgery, such as pyloroplasty, posterior gastrojejunostomy or gastric resection, and who present themselves with renewed ulceration are ideal subjects for this procedure. The previous surgery does not complicate

the operation. It may be carried out with excellent relief of symptoms in cases in which renewed attack on local structures through the abdomen would be technically complicated.

**234**:279-312 (Feb. 28) 1946

Medical Shock: Abnormal Biochemical Changes in Patients with Severe, Acute Medical Illnesses, With and Without Peripheral Vascular Failure. C. S. Davidson, Jessica H. Lewis, H. J. Tagnon and others. —p. 279.
*Early Diagnosis of Phlebothrombosis. W. R. Moses.—p. 288.
*Regional Injection of Penicillin in Local Infections: Preliminary Report. D. Rose and D. Hurwitz.—p. 291.
Practical Considerations in Planning and Conduct of National Medical Care Program. E. S. Rogers.—p. 296.
Ewing's Sarcoma of First Rib.—p. 304.
Chronic Glomerulonephritis of Left Kidney: Congenital Hypoplasia of Right Kidney.—p. 307.

**Early Diagnosis of Phlebothrombosis.**—Moses has observed that tenderness of the posterior calf following the course of the deep veins is almost always the first local sign of venous thrombosis. The skin, subcutaneous tissue, fascia and large calf muscles may be tested as a group aside from the deep veins by a simple test: Firm pressure of the fingers is used to explore for tenderness in any area of the posterior calf. When the level of tenderness has thus been determined, the calf is firmly compressed from side to side and the degree of tenderness is compared with that elicited in the first part of the test. In the presence of bland venous thrombi the skin, subcutaneous tissue, fascia and muscles show little if any tenderness on firm compression, whereas direct pressure on the veins, as executed in the first maneuver, causes definite pain. On the other hand, the superficial tissues are extremely tender at the second test if the tenderness resides in their layers. These two stages do not, however, rule out tenderness of the deep calf nerves, such as is present in a peripheral neuritis. The third part of the test is therefore a neurologic examination.

**Regional Injection of Penicillin in Local Infections.**—The series of cases treated by Rose and Hurwitz comprised 2 cases of osteomyelitis of the finger, 6 of felon, 6 of carbuncle, 3 of perianal infections, 6 of cellulitis, with and without abscess, and 2 of furuncle. Penicillin dissolved in isotonic solution of sodium chloride was prepared in the usual manner, the amount of solution used depending on the type and size of lesion to be treated. In fingers and other areas where loose tissue precluded a large volume, 2 to 4 cc. was used to dissolve 100,000 units of penicillin, thus giving a concentration of 50,000 to 25,000 units per cubic centimeter. The parts were cleansed with soap and water and painted with an aqueous solution or tincture of zephiran, and zones of tenderness were mapped out. Two to four sites of injection were chosen. The authors made the injection by hypodermic needle, starting outside the zone of palpable tenderness, injecting slowly ahead of the needle and progressing toward the center of the infection. The injection was made deeply in the tissue, not merely subcutaneously, except when the infection was within the skin, such as furuncles. Disability is reduced far below the point reached by any other means of treatment. There is no deformity such as that frequently following radical surgical incision and drainage. Pain is quickly relieved, in some cases within one hour and always within thirty-six hours. Preferably no evacuation should be performed until complete localization, and then only minimal surgery is indicated. In most cases evacuation occurs spontaneously during localization, with freedom from pain. Injections are painful, and the degree of pain is in direct ratio to the density of tissue and the volume of injection. Injections once daily are adequate. The fear of spreading the infection by this treatment has not been substantiated. In part, this is due to the fact that injections are started well outside the center of infection, thus reinforcing the barrier and aiding in localization.

## Occupational Medicine, Chicago

**1**:199-332 (March) 1946

Symposium on Scientific Proof and Relations of Law and Medicine:
Effects of Electrical Injuries, with Particular Reference to Nervous System. G. H. Hyslop.—p. 199.
Medicolegal Aspects of Injuries from Exposure to Roentgen Rays and Radioactive Substance. C. E. Dunlap.—p. 237.
Tuberculosis in Industry From Viewpoint of Physician in Industry. M. Pollak.—p. 302.

## Public Health Reports, Washington, D. C.

**61**:371-402 (March 15) 1946

Public Health Service Drinking Water Standard, 1946. Regulations of the United States Public Health Service.—p. 371.

**61**:403-432 (March 22) 1946

Excretion of DDT (2,2-Bis-(P-Chlorophenyl)-1,1,1-Trichloroethane) in Man, Together with Clinical Observations. P. A. Neal, T. R. Sweeney, S. S. Spicer and W. F. von Oettingen.—p. 403.
Alterations in Cardiac Conduction Mechanism in Experimental Thiamine Deficiency. W. D. King and W. H. Sebrell.—p. 410.

**61**:433-472 (March 29) 1946

Cerebrospinal Meningitis: Chronologic Record of Reported Cases and Deaths. Mary Gover and G. Jackson.—p. 433.
Physical Properties of DDT and Certain Derivatives. H. L. Andrews, W. C. White, L. R. Gamow and Dorothy C. Peterson.—p. 450.

## Review of Gastroenterology, New York

**13**:77-154 (March-April) 1946

Abdominal Pain from Surgeon's Point of View. L. Berger.—p. 93.
Hydrops of Gallbladder. N. Blumberg and L. Zisserman.—p. 97.
Gastric Mucosa in Infectious Hepatitis: Roentgenologic and Gastroscopic Studies: Report on 10 Cases. H. A. Monat, A. L. Robins and S. Glanz.—p. 102.
Gastroscopy. H. Barowsky.—p. 104.

## South Carolina Medical Assn. Journal, Florence

**42**:53-84 (March) 1946

Medical Education in South Carolina from a Survey Report to the Research, Planning and Development Board of South Carolina. Division of Surveys and Field Services.—p. 53.
Penicillin in Obstetrics. H. A. Power and C. A. Cravotta.—p. 65.

## Surgery, Gynecology and Obstetrics, Chicago

**82**:367-494 (April) 1946

"Hits, Strikes and Outs" in Use of Pedicle Flaps for Nasal Restoration or Correction. V. P. Blair and L. T. Byars.—p. 367.
*Observations on Treatment of Adenocarcinoma of Uterus. L. A. Gray, M. Friedman and W. S. Randall.—p. 368.
Practical Observations on Copper Sulfate Method for Determining Specific Gravities of Whole Blood and Serum. E. E. Muirhead, M. H. Grow and Albert T. Walker.—p. 405.
Lumbar Appendicitis and Lumbar Appendectomy. W. W. Babcock. —p. 414.
Correction of Blood Loss During Surgical Operations. C. E. Crook, Vivian Iob and F. A. Coller.—p. 417.
Patellectomy in Military Service: Report of 19 Cases. T. Horowitz and R. G. Lambert.—p. 423.
Bronchopneumonia Following Ether Anesthesia in Obstetrics. H. C. Hartzell and E. P. Mininger.—p. 427.
Retrograde Lymphatic Spread of Carcinoma of "Rectosigmoid Region": Its Influence on Surgical Procedures. R. P. Glover and J. M. Waugh. —p. 434.
Rectal Strictures Due to Lymphogranuloma Venereum, with Especial Reference to Pauchet's Excision Operation. L. T. Wright, B. N. Berg, J. V. Bolden and W. A. Freeman.—p. 449.
Ligation of Innominate Artery for Innominate Aneurysm Using Rubber Bands: Report of Case. J. C. Trent.—p. 463.
Failure of Urogenital Union. A. W. Badenoch.—p. 471.
Preliminary Report of Method for Prevention of Leakage of Intestinal Anastomoses: Experimental Study. J. Devine.—p. 475.
Utilization of Henle's Ligament, Iliopubic Tract, Aponeurosis Transversus Abdominis and Cooper's Ligament in Inguinal Herniorrhaphy: Report of 162 Consecutive Cases. J. H. Clark and E. I. Hashimoto. —p. 480.
Early Postoperative Rising: Statistical Study of Hospital Complications. J. B. Blodgett and E. J. Beattie.—p. 485.

**Treatment of Adenocarcinoma of Uterus.**—Gray and his associates treated 10 women with adenocarcinoma of the uterus. The cases are reported without a five year follow-up because residual carcinoma was found in some who had received enormous doses of radium by means of the hysterostat designed by one of the authors and because of the presence of ovarian metastasis in 3 patients. The radium applicator, called the hysterostat, was designed to achieve a more equable distribution of radiant energy to all parts of the uterus. Of the 10 cases 9 were moderately advanced or advanced, but without induration of the pelvic ligaments, and were therefore considered operable. Seven patients received unusually large doses of radium (6,030, 7,000, 7,000, 8,000, 8,900, 10,410, 12,480 milligram hours) followed by hysterectomy thirty-eight days to six months later. Six of these 7 uteri showed residual carcinoma. The 1 case in which there was no remaining carcinoma after radium was an extensive undifferentiated tumor in a large

uterus treated with 12,480 milligram hours of radium. One patient with early undifferentiated adenocarcinoma was treated with surgery alone. Three patients had ovarian metastasis. This study suggests that radium alone will not completely eradicate adenocarcinoma of the uterus. Subsequent excision of uterus, tubes and ovaries is necessary. Recent reports suggest that panhysterectomy with bilateral salpingo-oophorectomy should result in a five year arrest of 60 to 65 per cent of operable lesions. The impression that the five year survival rate may be increased to 70 or 80 per cent by the use of preoperative radium followed by hysterectomy has been growing during the last ten years. The authors think that the exact role and specific indications for preoperative radium therapy have not yet been satisfactorily delineated.

## Surgery, St. Louis

**19**:303-436 (March) 1946

*Preoperative Dietary Management for Surgical Patients, with Special Reference to Lesions of Stomach and Duodenum. R. L. Varco. —p. 303.
Alkaline Phosphatase and Metastatic Liver Disease. R. W. Bullard Jr. —p. 379.
Pulsating Hematoma, False Aneurysm and Arteriovenous Fistula Due to War Injuries. H. Conway and G. Plain.—p. 383.
*Causalgia Secondary to Injury of Major Peripheral Nerves: Treatment by Sympathectomy. F. F. Allbritten Jr. and G. L. Maltby. —p. 407.
Gunshot Wounds of Abdomen: Review of 149 Cases. R. S. Wilkinson, L. M. Hill and L. T. Wright.—p. 415.
Acute Pulmonary Edema Associated with Mediastinal Emphysema. F. T. Wallace.—p. 430.

**Preoperative Dietary Management for Surgical Patients.**—Varco says that, more frequently than seems to be appreciated, patients ill with diseases remediable by surgery present mild to severe states of starvation or malnutrition. A failure to recognize the importance of the concomitant effects that may develop from an inadequate nutrition (fatty liver, decreased hepatic function, hypoproteinemia) increases the hazards of surgery. Adequate preparation with appropriate diets lessens these dangers. These "poor risk" cases can be accepted for operative procedures tolerable to standard risk cases without augmenting seriously the risk, if good dietary preparation has been achieved. A diet rich in proteins, carbohydrates and calories but low in fats is best. High protein content has been achieved by fortifying several vehicles with milk powder, which contains all the essential amino acids. Similarly lactose, cane or beet sugar or cerelose (dextrose) was added to attain the high carbohydrate content. The fat content has been reduced to minimal values. Two diets developed on this plan are most frequently employed. Diet I is palatable and comes in multiple servings during the day. Diet II is designed for tube feedings and is less palatable but is taken readily by mouth by most patients. These diets have been used in the routine care of several hundred surgical patients. The percentage of body weight loss is probably the best guide for the duration of the feeding program. Despite the lack of confirmatory evidence obtained under rigid experimental conditions indicating that dietary preparation lessens the risk of formidable operations, the clinical evidence on this score is overwhelming, as suggested in a number of the case reports detailed in this study.

**Causalgia Secondary to Injury of Major Peripheral Nerves.**—Patients suffering from causalgia continue to be admitted to hospitals with a diagnosis of severe psychoneurosis, and prolonged delay in treatment has been a usual occurrence. During this period of delay the changes of disuse affect the extremity. This is of particularly serious import when the hand is involved. Despite the lack of an adequate explanation for the etiology of the pain, interruption of the sympathetic nerve supply to the extremity greatly modifies or abolishes the symptoms of the disease. During the past twelve months 67 patients have been admitted to Allbritten and Maltby's hospital with injury to a major peripheral nerve and causalgia of sufficient severity to warrant some form of treatment. The seat of the maximum pain has been in the distribution of the posterior tibial nerve or the median nerve. Thirty of this group desired sympathectomy after experiencing relief by sympathetic block. Of this group 22 had lumbar sympathectomies and 8 had preganglionic dorsal sympathectomies. Good to excellent results were obtained in 28 of the patients. Failure to relieve symptoms and reestablish use of the affected part occurred in 2 patients. The sympathectomization should be of sufficient extent to include the area of injury as well as the area of symptoms. Early sympathectomization will, in the vast majority, relieve the symptoms of the disease and prevent the profound disabilities of disuse.

## Tennessee State Medical Assn. Journal, Nashville

**39**:77-116 (March) 1946

Surgical Convalescence. J. C. Burch.—p. 77.
Professional Ethics. C. E. Reeves.—p. 81.
Use of Octin in Ureterolithiasis: Case. J. C. Pennington.—p. 92.

**39**:117-156 (April) 1946

This Is Our Medical Profession. W. C. Chaney.—p. 117.
American Medical Asociation—What, Why and Who. R. I. Lee. —p. 120.
Beta-Hemolytic Streptococcic Septicemia, Acute Bacterial Endocarditis, Acute Mastoiditis and Embolic Brain Abscess Successfully Treated with Sulfadiazine and Penicillin: Report of Case. J. L. Chestnut. —p. 126.
Acute Thyroiditis Treated with Penicillin. D. Scheinberg.—p. 132.

## United States Naval Med. Bulletin, Washington, D. C.

**46**:479-622 (April) 1946

Dysentery Outbreak Aboard Naval Vessels in San Pedro Bay, Philippine Islands. F. S. Cheever.—p. 479.
Report of 200 Necropsies on Natives of Okinawa. E. L. Benjamin. —p. 495.
*Tropical Headache: Preliminary Report on Diagnosis and Treatment. W. W. Woods and J. W. Stutzman.—p. 501.
Headache: Etiologic Approach, with Special Reference to So-Called "Vacuum Headache." H. L. Jones Jr.—p. 507.
Causes of Uniocular and Binocular Blindness in U. S. Navy and U. S. Marine Corps in World War II. C. A. Swanson and R. A. Stewart. —p. 520.
Shigellosis Studies: I. Etiology and Clinical Features. C. M. Thompson, B. V. White Jr. and W. L. Schafer.—p. 528.
Epidemiologic Study of Epidemic Hepatitis. R. W. Getty.—p. 541.
Copper Ionization Treatment of Fungous Infections. W. J. Lahey and J. E. Byrnes.—p. 554.
Abdominal War Wounds: Report of 10 Cases with Recovery. F. P. Shidler.—p. 558.
Aggravation of Bacterids by Penicillin, with Theory as to Causation. J. A. Heinlein, C. C. Carpenter and B. J. Duffy Jr.—p. 571.

**Tropical Headache.**—Woods and Stutzman examined 20 young men suffering from severe incapacitating headache for which no specific cause could be found. Five patients had severe unilateral frontotemporal headaches; the remaining 15 patients had bilateral frontal headaches. The unilateral type is to be considered as caused by abnormal extracranial vasodilatation. The pain is conducted by afferent fibers coursing along the vessels and may often be relieved by selective arterial resection. The unilateral pain did not respond to therapy consisting of increased salt solution and calcium intake or of neostigmine injections. It was made worse by heat and exertion and by jugular compression produced by a blood pressure cuff about the neck, inflated to 35 mm. of mercury for three minutes. The second type represented by the 15 cases of bilateral frontal headache is to be considered as arising from intracranial vascular structures. In all these cases the headache was made worse by heat and exertion but was often improved by the jugular compression test. Carotid occlusion seemed to relieve the headache on that side only and often made the pain worse on the opposite side. Occlusion of extracranial arteries had no effect. Since the headache was accompanied by decreased intracranial pressure in the upright position, made worse by lowering the level further and abolished by raising the pressure, it could be assumed that traction on the intracranial vessels was a factor. This type of headache was definitely aided by increased salt, calcium and fluid intake and by injections of neostigmine methylsulfate.

## Western J. Surg., Obst. & Gynecology, Portland, Ore.

**54**:77-126 (March) 1946

Operation for Correction of Flexible Flat Feet of Adolescents. E. F. S. Chambers.—p. 77.
Infiltrating Benign Lipomas of Extremities. J. M. Regan, W. H. Bickel and A. C. Broders.—p. 87.
Further Studies in Use of Sigmodal in Obstetric Analgesia and Amnesia. T. M. Watson.—p. 94.
Menstrual Dysfunctions: The Climacteric. S. C. Freed.—p. 103.

## FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below. Single case reports and trials of new drugs are usually omitted.

### British Journal of Urology, London

**17**:131-178 (Dec.) 1945

True Infective Abacterial Pyuria. T. Moore.—p. 131.
Contribution to Etiology of Acquired Fibrosis of Bladder Neck. W. E. Coutts and R. Vargas-Zalazar.—p. 136.
Incidence of Signs of Renal Injury Following Prolonged Burial Under Débris in Unselected Series of 764 Air Raid Casualties Admitted to Hospital. J. W. B. Douglas.—p. 142.

### Edinburgh Medical Journal

**53**:49-96 (Feb.) 1946. **Partial Index**

Increasing Incidence of Pulmonary Tuberculosis in Children in Glasgow. S. Laidlaw.—p. 49.
Experiences in Mass Radiography. A. Maclean.—p. 52.
Pathogenesis of Tuberculous Epididymitis. W. M. Borthwick.—p. 55.
Health Risk in Tuberculosis Nursing. C. Cameron.—p. 76.
Acute Inflammation and Abscess Formation Due to Diphtheroid Bacillus. R. Salm.—p. 83.

### Lancet, London

**1**:369-404 (March 16) 1946

Penicillin in Subacute Bacterial Endocarditis: Report to Medical Research Council on 147 Patients Treated in Fourteen Centers Appointed by Penicillin Clinical Trials Committee. R. V. Christie. —p. 369.
Blood Loss in Battle Casualties: Use of Transfusion Fluids. J. V. Dacie and G. F. Homer.—p. 371.
Urinary Mepacrine in Relation to Incidence and Diagnosis of Malaria. J. Yudkin.—p. 377.
Spinal Anesthesia: Variations in Dosage Required. A. R. Hunter. —p. 380.
Achalasia of Esophagus Following Depressed Fracture of Base of Skull. J. J. Fleminger and M. C. Smith.—p. 381.

**1**:405-446 (March 23) 1946

Search for Philosophy of Medicine. D. Guthrie.—p. 405.
Penicillin Therapy: Clinical and Laboratory Observations on 400 Cases. R. V. Hudson, R. I. Meancock, J. McIntosh and F. R. Selbie.—p. 409.
Paralytic Ileus in Severe Hypothyroidism. P. A. Bastenie.—p. 413.
Gravid Uterus in a Strangulated Hernia. R. Laird.—p. 416.
Unusual Rectovesical Injury. R. Smith.—p. 417.

### Practitioner, London

**156**:152-224 (March) 1946. **Partial Index**

Dental Emergencies and the Medical Practitioner. F. C. Wilkinson. —p. 160.
Significance of Dental Infections. F. A. Knott and C. W. Shuttleworth. —p. 168.
Modern Views on Pyorrhea. J. D. Hamilton Jamieson.—p. 176.
Care of the Teeth in Children. J. P. Helliwell.—p. 184.
Observations on Elucidation of Obscure Pyrexia. J. L. Fluker.—p. 190.
Investigation of Some Causes of Delay in Labor. Elizabeth A. Nettell. —p. 203.

### Quarterly Journal of Medicine, Oxford

**15**:1-90 (Jan.) 1946

Treatment of Amebiasis, with Special Reference to Chronic Amebic Dysentery. W. H. Hargreaves.—p. 1.
*Pamaquin Hemoglobinuria. S. B. Dimson and R. B. McMartin.—p. 25.
Temporal Arteritis: Generalized Vascular Disease. W. T. Cooke, P. C. P. Cloake, A. D. T. Govan and J. C. Colbeck.—p. 47.
Lead Content of Blood and Its Relation to Rarefying Processes in Bone. A. Brown.—p. 77.

**Hemoglobinuria Due to Pamaquin.**—Dimson and McMartin encountered hemoglobinuria in 13 of 10,000 Indian troops who received pamaquin (plasmochin) during "blanket treatment" and in 5 of 8,000 patients who received it during routine treatment of malaria. The authors use the term "blanket treatment" to describe a course of treatment given to men withdrawn from a malarious area to one which is nonmalarious, on the assumption that they have already developed subclinical malaria. Three deaths occurred in the group given "blanket treatment." Clinical and postmortem findings were identical with those described in classic blackwater fever. Treatment was usually by absolute rest, fluids and alkalis. Etiologic factors discussed include lack of rest, dosage, batch toxicity, race, suppressive quinacrine, malaria, blackwater fever, liver damage and toxicity of pamaquin. The term blackwater fever describes a syndrome which has several causes. Definition on an etiologic basis is desirable. Thus hemoglobinuria due to malaria, quinine, quinacrine or pamaquin are terms which are preferable, being more accurate, though there may be common underlying factors present in varying degrees. As far as pamaquin hemoglobinuria in the present series is concerned, malaria appears to play a lesser role than it does in classic blackwater fever (malarial hemoglobinuria). Oversusceptibility to pamaquin is held to be the determining factor in producing the hemoglobinuria, with the previous administration of quinacrine an important contributory cause.

### South African Medical Journal, Cape Town

**20**:77-104 (Feb. 23) 1946. **Partial Index**

Streptomycin. H. O. Hofmeyr.—p. 78.
Electroencephalography in Mental Hospital Practice. L. A. Hurst. —p. 87.
Pure Vi Strain of Bact. Typhosum. W. Lewin.—p. 92.
Should Sterilization be Legalized? D. K. Ludwin.—p. 94.
Note on Sulfonamide Drugs as Inhibitors of Intestinal Vitamin Synthesis. H. Le Riche.—p. 98.

### Presse Médicale, Paris

**54**:85-104 (Feb. 9) 1946

Electron Microscopic Examination of Treponema Pallidum. C. Levaditi. —p. 85.
*Brain Abscess and Sulfonamide Therapy. J. Piquet.—p. 87.
Initial Lesions of Periarteritis Nodosa. P. Nicaud.—p. 88.
Intramedullary Osteosynthesis of Diaphyses. P. L. Chigot.—p. 89.
Determination of Proteins, Hemoglobin and Red Blood Corpuscles by Philipps and Van Slyke's Method. J. Perrotin, M. Lemaire and Rosine Stoecklin.—p. 91.

**Sulfonamide Therapy for Brain Abscess.**—Piquet reports the results of sulfonamide therapy of 15 patients operated on for brain abscess of otitic origin. Nine had a cerebral abscess and 6 a cerebellar abscess. Six patients with cerebral abscess and 2 with cerebellar abscess recovered. Treatment consisted in surgical removal of the initial focus, drainage of the abscess, allowing an iodoform drain to remain in the cavity and occasionally of decompression trephining. Eight to 10 Gm. of the sulfonamide compound was administered daily for one week, and treatment was continued with smaller doses depending on the improvement. Two patients had recurrence of the abscess. Sulfonamide therapy apparently improves the prognosis of a cerebral abscess by checking the encephalitis in the adjacent area of the abscess, but control of the patient for the next three months is essential because of occasional recurrence. Increased cerebral pressure may be relieved by puncture of the dura in the area of the primary abscess. An iodoform drain should be placed in the cavity for two to three months and be changed every eight to ten days. Neither local nor general sulfonamide therapy was effective in cerebellar abscess. It was demonstrated that the white substance of the brain fixed twice the amount of sulfonamide as the cerebellar tissue.

### Progrès Médical, Paris

**74**:65-96 (Feb. 24) 1946

Osteolytic Metastases of Cancer of Breast. M. Loeper and M. Le Sourd. —p. 67.
Metastases of Cancer of Prostate. M. Loeper and J. Trémolières.—p. 69.
*Calcium Metabolism in Course of Cancer of Breast and of Cancer of Prostate with Bone Metastases. J. and Jacqueline Loeper.—p. 70.

**Calcium Metabolism in Cancer with Bone Metastases.**—The Loepers studied 14 cases of cancer of the breast with bone metastases. In 13 cases the metastases were of the osteolytic type, and in only 1 case were osteoplastic metastases present. In 9 cases there was an abnormal rise of blood calcium up to 128 mg. By comparing the level of blood calcium with the extent of the osteolytic process it was demonstrated that higher calcemia corresponded in general to a larger extent of the osteolytic lesions; but 2 patients with a calcemia of 100 and 110 mg. presented a fairly extensive osteolytic process, and a third patient with a calcium blood level of 100 mg. presented an extensive osteolytic process. Because of the regulating system of the blood calcium level, the calcemia does not always give an exact picture of calcium mobilization. The calcium balance of 3 patients was determined. The first patient showed a pronounced negative balance; there was an extensive osteolysis, a calcemia of 124 mg. and a mean daily calcium loss of 188 mg. Patient 2 showed an even more pronounced negative balance with extensive osteolysis, a calcemia of 100 mg. and a mean

daily calcium loss of 895 mg. The third patient showed a positive balance, a mild osteolysis, a calcemia of 116 mg. and a mean daily calcium excess of 95 mg. In general the calcium balance of patients with extensive osteolytic lesions is negative. In the same patients the calcemia is more pronounced when less calcium is lost by the excretory organs, and inversely. Renal and intestinal factors have some influence on the elimination rate of the mobilized bone calcium. Extracts of tumors of the breast were injected subcutaneously in rabbits and in dogs. A permanent hypercalcemia resulted in 4 of 7 animals; the increase in calcemia varied from 8 to 35 mg. It is suggested that cancer cells are endowed with osteolytic internal secretion and that the effect of the osteolytic principle may be similar to that of parathyroid extract. The parathyroid reaction given occasionally by patients with cancer of the breast in which there are osteolytic metastases is not constant and is secondary to the osteolytic process caused by the cancer cells. It is a primary defense reaction which surpasses its aim and in turn aggravates the osteolytic process. Study of 2 patients who had cancer of the prostate with bone metastases demonstrated that the metastases were osteoplastic; they were not associated with hypercalcemia, and there was a positive calcium balance.

## Annales Pædiatrici, Basel

**166**:1-56 (Jan.) 1946

*Pontine Tumors in Infancy. Tieline A. E. Janssen.—p. 1.
Vitamin Resistant Rickets. Marlies Lüssy.—p. 11.

**Pontine Tumors in Infancy.**—To 5 cases of tuberculoma pontis collected from the literature Janssen adds a sixth of her own observation, her patient being a little girl in whom symptoms appeared when she was 3½ months old and who died at 9 months. Necropsy revealed a ganglioneuroma or a ganglioglioneuroma which had spread from the caudal portion of the pons to the left half of the cerebellum and to the medulla oblongata. All 6 patients had lesions of one or several of the cerebral nerves, but the symptoms of the pontine tumor in the author's patient showed greater multiformity than in the others. She thinks that this may be due to the extensive and infiltrating growth of the ganglioneuroma.

## Schweizerische medizinische Wochenschrift, Basel

**75**:981-1000 (Nov. 10) 1945

Clubfoot and Other Orthopedic Deformities as Hereditary Defects. H. Debrunner.—p. 981.
Gunshot Wound of Heart. K. Lenggenhager.—p. 985.
*Electrocardiographic Aspects of Epidemic Hepatitis. V. Louis.—p. 986.
Early Diagnosis and Treatment of Tumors of Superior Maxilla. K. Kallenberger.—p. 990.
Role of Adrenals in Pathology and Treatment of Mustard Gas Poisoning. J. Kuchárik and A. Telbisz.—p. 996.

**Electrocardiographic Changes in Epidemic Hepatitis.**—Louis reports electrocardiographic studies made on 47 jaundiced patients. Twenty-four, or more than 50 per cent, of these patients had pathologic changes in the electrocardiogram. Anomalies in the T deflection and in the ST wave were most frequent. He also observed changes in the rhythm indicative of atrioventricular conduction disturbances. He believes that his is the first report of such conduction disturbances in jaundice.

## Arch. Urug. de Med., Cir. y Especialid., Montevideo

**27**:473-576 (Nov.) 1945. **Partial Index**

*Malaria Caused by Blood Transfusion. R. V. Talice and J. E. Mackinnon.—p. 473.
Ovalocytosis. R. A. Piaggio Blanco and P. Paseyro.—p. 482.
Gentian Violet in Skin Disorders in Children. J. M. Tiscornia Denis.—p. 487.
Complications During Convalescence of Patient with Typhoid: Orchiepididymitis and Spondylitis. J. M. Reyes Terra and J. Dubourdieu (h).—p. 512.

**Accidental Malaria by Transfusion.**—Talice and Mackinnon present the histories of 2 patients who developed malaria after they had received transfusions of fresh blood. In both patients the malaria was produced by Plasmodium malariae. Both responded to quinine therapy. Investigation of the donors revealed that 1 had acquired malaria nine years before in Africa and the other seven years before in Italy. The authors stress that malaria and syphilis are the two diseases that must be watched for in selecting donors for blood transfusions, regardless of whether the blood is to be used fresh or is to be stored. Since malaria is not endemic in Uruguay they think that, if only persons who have never been outside Uruguay are used as blood donors, accidental transmission of malaria by blood transfusion will be avoided.

## Nederlandsch Tijdschrift v. Geneeskunde, Amsterdam

**90**:39-78 (Jan. 19 and 26) 1946

Occurrence, Diagnosis and Prognosis in Total Atrioventricular Block in Diphtheria. P. Schweitzer.—p. 44.
Hemorrhagic Infarction of Uterus and Adnexa Following Abortion Provoked by Soap Suds. H. E. Schornagel.—p. 47.
Epicondylalgia (Epicondylitis). M. N. Roegholt.—p. 50.
*Rheumatism and Liver. E. M. Bingen and J. B. Stolte.—p. 52.
Leukoerythroblastosis in Malignant Tumors. J. B. Stolte.—p. 54.
Roentgenologic Measurement of Pelvis. H. E. A. Fermin.—p. 57.
Penicillin Therapy in Staphylococcic Sepsis. J. A. van Loon and G. H. De Kleyn.—p. 59.
Biologic Aspects of Effects of Atomic Bomb. D. den Hoed.—p. 61.

**Rheumatism and Liver.**—Bingen and Stolte found that a large percentage of 27 patients with acute rheumatism and of 21 patients with chronic rheumatic polyarthritis exhibited deviations from the normal in various liver tests. Occasionally hepatic cirrhosis was associated with chronic rheumatic polyarthritis. Jaundice was present in 8 among 193 patients with chronic rheumatic polyarthritis; in 1 it was caused by hepatitis and in the other 7 by cholecystopathy, but a favorable effect on the articular symptoms was never noted. In 1 patient joint symptoms appeared while there was jaundice. The authors conclude that acute rheumatism as well as chronic rheumatic polyarthritis is frequently accompanied by liver impairment and that rheumatic heart lesions concur frequently in patients with hepatic cirrhosis. The etiologic significance of liver and biliary tract for rheumatism is not certain.

## Acta Medica Scandinavica, Stockholm

**123**:303-402 (Feb. 15) 1946

Neurocirculatory Syndrome ("Neurocirculatory Asthenia") in Soldiers: II. Clinical Investigation. E. Adlercreutz.—p. 303.
Epinephrine Determination According to Fluorescence Method. B. von Porat.—p. 317.
Vitamin C Standard in Various Groups of Population in Finland in Years of War 1941-1943. J. E. Wingren.—p. 340.
*Treatment of Parathyroid Tetany with Vitamin $D_2$. P. Schultzer and B. C. Christensen.—p. 362.
Panmyelopathy (Panmyelophthisis). A. Aubert.—p. 377.
Studies on Serum Proteins in Hepatitis: I. Relation Between Serum Albumin and Serum Globulin. M. Bjørneboe.—p. 393.

**Treatment of Parathyroid Tetany with Vitamin $D_2$.**—Eleven patients who had parathyroid tetany were treated by Schultzer and Christensen with ultranol fortior, an oil solution containing 300,000 international units of vitamin $D_2$, i. e. 7.5 mg. in 1 cc., which corresponds to 0.25 mg. in one drop. Nine of the patients had developed symptoms after a subtotal strumectomy for hyperthyroidism. In 1 patient strumectomy with removal of practically all parathyroid tissue was performed for a large adenoma of the parathyroid. One patient suffered from idiopathic tetany. Ten of the patients were women between the ages of 23 and 48, and 1 was a man aged 33. All the patients had previously been treated with dihydrotachysterol, of which they received between 1.33 and 5 mg. daily. The reaction of the patients to dihydrotachysterol was not uniformly ideal, since some of them presented mild hypocalcemia. Dihydrotachysterol was replaced by vitamin $D_2$, and the dose adjusted so that the patients presented a normal blood calcium level. The daily dose was 1 to 4.5 mg. of $D_2$. Dihydrotachysterol may be safely replaced by vitamin $D_2$. The amount of vitamin $D_2$ to be given should be somewhat smaller (on an average about 25 per cent) than that of dihydrotachysterol. For the treatment of acute cases of postoperative parathyroid tetany 5 mg. of vitamin $D_2$ daily will generally be adequate; additional intravenous injections of calcium chloride or calcium gluconate may be given for the first few days. In the cases studied there occurred a prompt rise of the serum calcium concentration, which continued for from one to five months until the maximum effect of vitamin $D_2$ was obtained. When adjusted the patients felt as well under treatment with vitamin $D_2$ as they did when treated with dihydrotachysterol.

# Book Notices

**The Sulphonamides in Theory and Practice.** By J. Stewart Lawrence, M.D., M.R.C.P. Cloth. Price, 9s. Pp. 125. London: H. K. Lewis & Co., Ltd., 1946.

In the preface the author states that "the spate of new drugs of this class seems to be waning and recent work has been concerned more with consolidating our knowledge of the old ones. Time therefore seems opportune to attempt a brief survey of the facts which have been evolved." He has succeeded in crystallizing the present status of sulfonamide therapy, drawing heavily on the literature rather than on his personal experience for his information. There is an excellent summary of the mode of action and the pharmacology of the sulfonamides. Included in the discussion are phthalylsulfathiazole and homosulfanilamide. There is a well timed chapter on common abuses of the sulfonamides. In a concluding section on sulfonamides or penicillin the author devotes only one and one-half pages to this important feature of the subject. In general, the material is presented clearly and concisely. Pertinent references to the literature are given. This monograph can be recommended to the practitioner who desires a comprehensive and up to date survey of the subject.

**Human Embryology (Prenatal Development of Form and Function).** By W. J. Hamilton, M.D., D.Sc., F.R.S.E., Professor of Anatomy in the University of London at the Medical College of St. Bartholomew's Hospital, J. D. Boyd, M.A., M.Sc., M.D., Professor of Anatomy in the University of London at the Medical College of the London Hospital, and H. W. Mossman, M.S., Ph.D., Associate Professor of Anatomy in the University of Wisconsin, Madison. Cloth. Price, $7. Pp. 366, with 364 illustrations. Baltimore: William Wood & Company, 1945.

This book may well be taken by other medical authors as an example to emulate. The text is well written; the beginning student will find the expositions of developmental processes remarkably clear. The style is delightful and never becomes stodgy. Without sacrificing scientific accuracy, the authors have succeeded in avoiding the dry, boring flavor one meets so often in textbooks. One reason for their success may be the frequent references to the literature. The illustrations are excellent. They have been well chosen and excellently drawn and reproduced. Many are three dimensional. They serve admirably to clarify points which might be difficult for the reader to visualize from descriptions. The book is printed on good paper and is well bound. One could wish that the page had been printed in two 3 inch columns instead of one 6 inch column. There is a full list of references at the end of each chapter. The authors have displayed excellent judgment in the space allotted to the various topics. Development of the human embryo is emphasized, although there are chapters on experimental and comparative embryology. This book will become popular with medical teachers and students.

**De behandeling van hypertensie met zoutloos dieet en met uitdrijving van keukenzout: Een klinische en haemodynamische studie.** Door Hendrik Johan Viersma. [Therapy of Hypertension with Salt-Free Diet and with Elimination of Salt: Clinical and Hemodynamic Study.] Academisch proefschrift ter verkrijging van den graad van doctor in de geneeskunde aan de Universiteit van Amsterdam. Paper. Pp. 322, with 22 illustrations. Amsterdam: N. V. Noord-Hollandsche Uitgevers Maatschappij, 1945.

Although the use of a salt poor diet for the treatment of hypertension was first recommended about forty years ago, the rationale of its use and its value in this disease has been a subject of controversy. With the renewed interest in the experimental and therapeutic study of hypertension, several groups of investigators have recently once again undertaken a study of the effects of drastic salt restriction on the blood pressure and the value of this form of therapy clinically. In the monograph under review, Viersma has surveyed in great detail the earlier literature, not only on the effect of salt restriction, but also on the various hemodynamic factors and salt and water metabolism in the organism and renal factors which might be affected by salt restriction. In addition, careful and well controlled observations were made on 8 patients with essential hypertension, 2 with chronic nephritis and 4 with malignant hypertension, who were studied over periods varying from seventy-two days to two and a half years. All the patients studied were in the older age groups, the youngest being 35 and the others 45 or older. As is well known, the drops in pressure observed during drastic salt restriction are less in the older persons, which was also the experience of the author. In addition to the salt free diet, ammonium nitrate and salyrgan to deplete further the organism of salt were added as an adjuvant form of therapy. The author concludes that the combination of drastic salt restriction with the use of a mercurial diuretic is to be recommended in the treatment of hypertension, particularly in those who manifest serious symptoms of heart failure, angina pectoris, hypertensive retinopathy or vascular crises. However, in malignant hypertension and in the presence of poor renal function, salt restriction alone without the use of a mercurial diuretic is advocated. In the acute stage of myocardial infarction, salt deficiency is contraindicated.

The author is to be commended for a carefully controlled and well documented study which demonstrates again the value of drastic salt restriction in the treatment of hypertension. However, much still remains to be learned before the mechanism involved in this process will be elucidated.

**Diagnostic Psychological Testing: The Theory, Statistical Evaluation, and Diagnostic Application of a Battery of Tests.** By David Rapaport, Ph.D. With the collaboration of Merton Gill, M.D., and Roy Schafer, B.S. Volume 1. The Menninger Clinic Monograph Series No 3. Cloth. Price, $6.50. Pp. 573, with 38 illustrations. Chicago: Year Book Publishers, Inc., 1945.

In this volume seven psychologic tests are evaluated. The authors made a serious attempt to present not only the technical aspects of psychologic testing but also the kind of material useful to the clinical psychiatrist. There is no doubt about the importance of psychologic testing, and the efforts of the authors emphasize the importance of obtaining psychologic information from the test performance in addition to a diagnosis of intellectual capacity. In the effort to obtain information additional to the test scores the authors have fallen into several serious errors. For example, in the foreword the authors state that they did not advocate a mechanically standard procedure of administering the tests but one which would create optimal conditions. This statement seems plausible but actually makes the rather curious assumption that the psychologist can change the standard methods to suit a particular situation. If this is done it is obvious that there are no standard methods, and the authors constantly refer, as they should, to the fact that scientific data in the field of testing can be obtained only if scientific methods are rigorously used. That the authors are somewhat confused regarding the use of standard methods and of subjective observation is further brought out by their statement on page 3 that in psychologic testing more or less standard scoring systems are used. Again, on page 10, in speaking of the word association test, the statement is made that this test lost its usefulness because it was mechanically applied and statistically treated. The authors then state that they introduced a systematic qualitative point of view. Any psychologist who has labored in his laboratory in order to standardize and quantify psychologic methods and to create a science out of the subjective psychology of the nineteenth century will probably be shocked by such statements. The fact that the authors adapted the tests to suit the patient's needs (p. 13) and that the psychologist's attitudes varied from individual to individual indicates a somewhat contemptuous attitude toward rigorous scientific method. This is probably inconceivable in view of the excellent work of these authors; it may well be that the pressure of the clinicians for interpretative material created attitudes which tended to make the testing subjective rather than objective.

The discussion of the tests is excellent, and the book is readable.

**The Diagnosis of Nervous Diseases.** By Sir James Purves-Stewart, K.C.M.G., C.B. Ninth edition. Cloth. Price, $11. Pp. 880, with 358 illustrations. Baltimore: William Wood & Company, 1945.

This is a good book on neurologic diseases. The author is well known and has followed the study of nervous diseases for over forty years. Because of this, one finds material or facts about almost all the diseases of the nervous system. It is up to date and is highly recommended for medical students and general practitioners.

# Queries and Minor Notes

THE ANSWERS HERE PUBLISHED HAVE BEEN PREPARED BY COMPETENT AUTHORITIES. THEY DO NOT, HOWEVER, REPRESENT THE OPINIONS OF ANY OFFICIAL BODIES UNLESS SPECIFICALLY STATED IN THE REPLY. ANONYMOUS COMMUNICATIONS AND QUERIES ON POSTAL CARDS WILL NOT BE NOTICED. EVERY LETTER MUST CONTAIN THE WRITER'S NAME AND ADDRESS, BUT THESE WILL BE OMITTED ON REQUEST.

## REACTIONS FROM INTRAVENOUS GLUCOSE SOLUTION

*To the Editor:*—**Why do glucose solutions produce a reaction with chills and a rise of 2 or 3 degrees of temperature if the glucose solution is pyrogen free and the appliance and needles autoclaved?** M.D., Minnesota.

ANSWER.—Pyrogens are chemical substances which are elaborated by bacteria, which may grow even in distilled water. Many species of bacteria produce these substances, but the most common source are the types found in river water. The name is derived from the fact that the substances produce febrile reactions when injected parenterally. Pyrogens pass through most bacterial filters and are not inactivated by the heat applied in autoclaving solutions or equipment for parenteral therapy (Seibert, F. B.: Fever-Producing substances Found in Some Distilled Waters, *Am. J. Physiol.* **67**:90 [Dec.] 1923; **71**:621 [Feb.] 1925).

In the preparation of equipment for parenteral therapy two steps must be observed: 1. The equipment must be thoroughly washed with pyrogen-free solutions, such as distilled water which has recently passed through a proper still. 2. The equipment then must be autoclaved within a few hours (approximately six) to destroy any bacteria which may have been introduced after the cleansing.

If a solution of dextrose was employed which was manufactured commercially and tested for pyrogens, then the pyrogenic substances must have resulted from the imperfect preparation of the rubber tubing and other apparatus. In such a case the pyrogens could be washed out by allowing the first 100 to 200 cc. of the dextrose solution to be discharged through the apparatus and discarded before the injection into the patient is begun. The occurrence of pyrogens in the equipment for parenteral therapy is a strong argument for entrusting the preparation of such equipment to a few trained personnel in the hospital.

## ATTACKS OF DYSPNEA AND COUGH

*To the Editor:*—**A physician aged 63 has been suffering from repeated attacks of early morning dyspnea and cough raising phlegm. He is relieved by whisky and oxygen. It has lasted four months without sign of improvement. Now, although slightly improved, attacks continue. The electrocardiogram reveals left bundle branch block. There are recurring attacks at three or four day intervals and heavy sweats in the morning. I am requesting information relative to additional treatment particularly if digitalization is indicated under these conditions.**

M.D., New Jersey.

ANSWER.—From the information given, it is impossible to make a definite statement with regard to digitalization. Digitalis is indicated if there is any evidence of congestive failure or if there is auricular fibrillation with a rapid ventricular rate. As mention is not made of these conditions, digitalis is presumably not indicated. The left bundle branch block may be considered evidence of myocardial damage but not the cause, per se, of any of the signs or symptoms of congestive failure. Many patients exhibit bundle branch system block for years without any cardiac symptoms.

Although no mention is made of physical findings, it is possible that this condition may be due entirely to pulmonary disease. Chronic bronchitis or bronchiectasis can cause these symptoms. The occurrence of these episodes in the early morning is suggestive of bronchiectasis, though other pulmonary conditions such as neoplasm must be considered. It is important, especially in a 63 year old man, that the etiology of such a condition be established. It is suggested that, in addition to a more complete cardiac examination, a complete study of the lungs be made, including x-rays of the chest, bronchograms and, if necessary, bronchoscopic examination.

## PENICILLIN FOR COLDS

*To the Editor:*—**What success has there been in the prevention or treatment of colds by the use of penicillin?** M.D., Iowa.

ANSWER.—Penicillin does not seem to be of value in the prevention and treatment of colds. Up to the present time penicillin has not proved valuable in the treatment of any virus infections. If colds are complicated by acute sinusitis due to penicillin susceptible organisms, then penicillin may be used.

## VITILIGO

*To the Editor:*—**A woman with vitiligo is being given gold sodium thiosulfate 100 mg. intravenously twice weekly and bergamot oil solution 10 per cent in 95 per cent alcohol applied twice daily. Coincident with this treatment she is supposed to get five minute exposures of ultraviolet rays without the sun tan effect on the skin twice weekly. The patient has had ten weeks of treatment with the gold sodium thiosulfate and the bergamot oil but no ultraviolet radiation. She now wishes to begin the treatment over, taking the ultraviolet radiation along with the other medication. In case this should not be done, will it have the desired effect if she takes the recommended ultraviolet radiation without any other medication? Will you please discuss the outlined treatment for vitiligo? What type of carbon arc lamp is most desirable for ultraviolet rays with the least amount of sun tan?** M.D., West Virginia.

ANSWER.—There is no effective therapy for the treatment of vitiligo. Gold sodium thiosulfate has been used for this purpose, but the proportion of favorable results is so small that it seems questionable whether it is advisable to expose the patient to the possible toxic effects of gold salts, particularly in large doses such as are being used in this instance. The use of bergamot oil with ultraviolet irradiation is based on the observation that in certain persons hyperpigmentation of the skin has developed when patients have applied toilet waters containing essential oils to the skin and have then been exposed to sunlight. Unfortunately, this method of treatment has practically no effect on depigmented areas in vitiligo. In exceptional instances the pigment returns spontaneously in cases of vitiligo, and it is entirely possible that in cases in which favorable results have been obtained, either while using gold salts or employing bergamot oil and the ultraviolet method or a combination of the two methods, the improvement is coincidental.

## AMPHETAMINE AND DEXTROAMPHETAMINE SULFATE

*To the Editor:*—**Amphetamine (benzedrine) and dexedrine sulfate have been given to patients complaining of depressive states bordering on melancholia with a great deal of temporary symptomatic relief. What deleterious effect might be produced by the continued use of either of these drugs over a long period aside from the possibility of producing a drug habit? Is there any difference in the two drugs, aside from their chemical composition?** T. A. Moran, M.D., Melrose, Iowa.

ANSWER.—Benzedrine sulfate (racemic amphetamine sulfate) has been given daily over a period of years in the treatment of narcolepsy without any apparent ill effects attributable to the long continued administration and rarely, if ever, with the development of tolerance. Dexedrine sulfate (dextroamphetamine sulfate) is about one and one-half to two times as active as the racemic amphetamine in its central nervous system stimulating effect. The peripheral actions of the two drugs are essentially equivalent. Hence, when used as a central stimulant, dexedrine is claimed to have fewer undesirable side-effects.

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Bloomberg, Wilfred: End Results of Large Doses of Amphetamine Sulfate Over Prolonged Periods, *New England J. Med.* **222**:946 (June 6) 1940.

Prinzmetal, Myron, and Alles, G. A.: The Central Nervous System Stimulant Effects of Dextroamphetamine Sulfate, *Proc. Soc. Exper. Biol. & Med.* **42**: 206 (Oct.) 1939.

## FATE OF BEESWAX IN PENICILLIN MIXTURES

*To the Editor:*—**What is the fate of beeswax which has been injected intramuscularly? Is it completely absorbed or does it act like paraffin? Does it induce much fibrous tissue formation?** M.D., California.

ANSWER.—Beeswax is removed from the tissues by phagocytosis. Twenty-four hours after the intramuscular injection of penicillin in beeswax and peanut oil the particles of beeswax are separated by collections of polymorphonuclear cells, large mononuclear cells and foreign body giant cells. No muscle necrosis is associated with this reaction, the fibers merely being separated. Beeswax usually disappears by the thirtieth day. Very little fibroblastic reaction occurs, and that disappears within several months. In human beings who died from various causes one or two months after receiving penicillin in beeswax and peanut oil, numerous sections of the muscle were necessary to find the site of injection and beeswax was not identified. At this time minute cysts, some partially collapsed, having thin fibrous walls, with scattered giant cells, are present.

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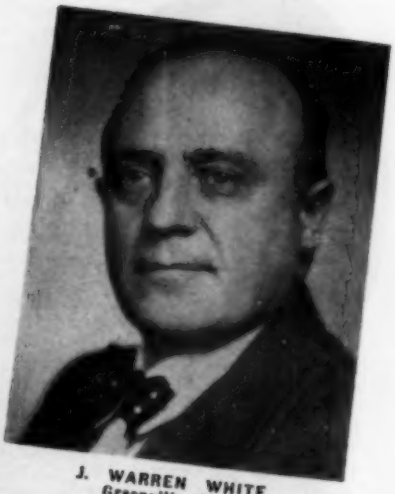

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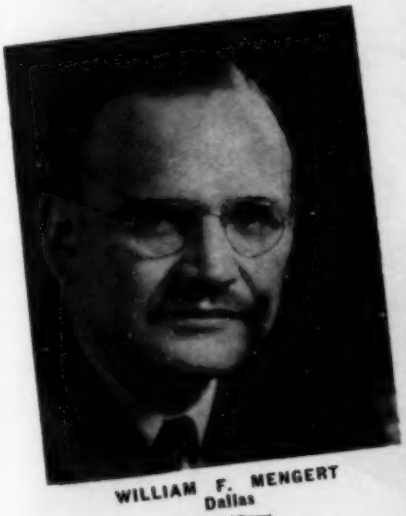

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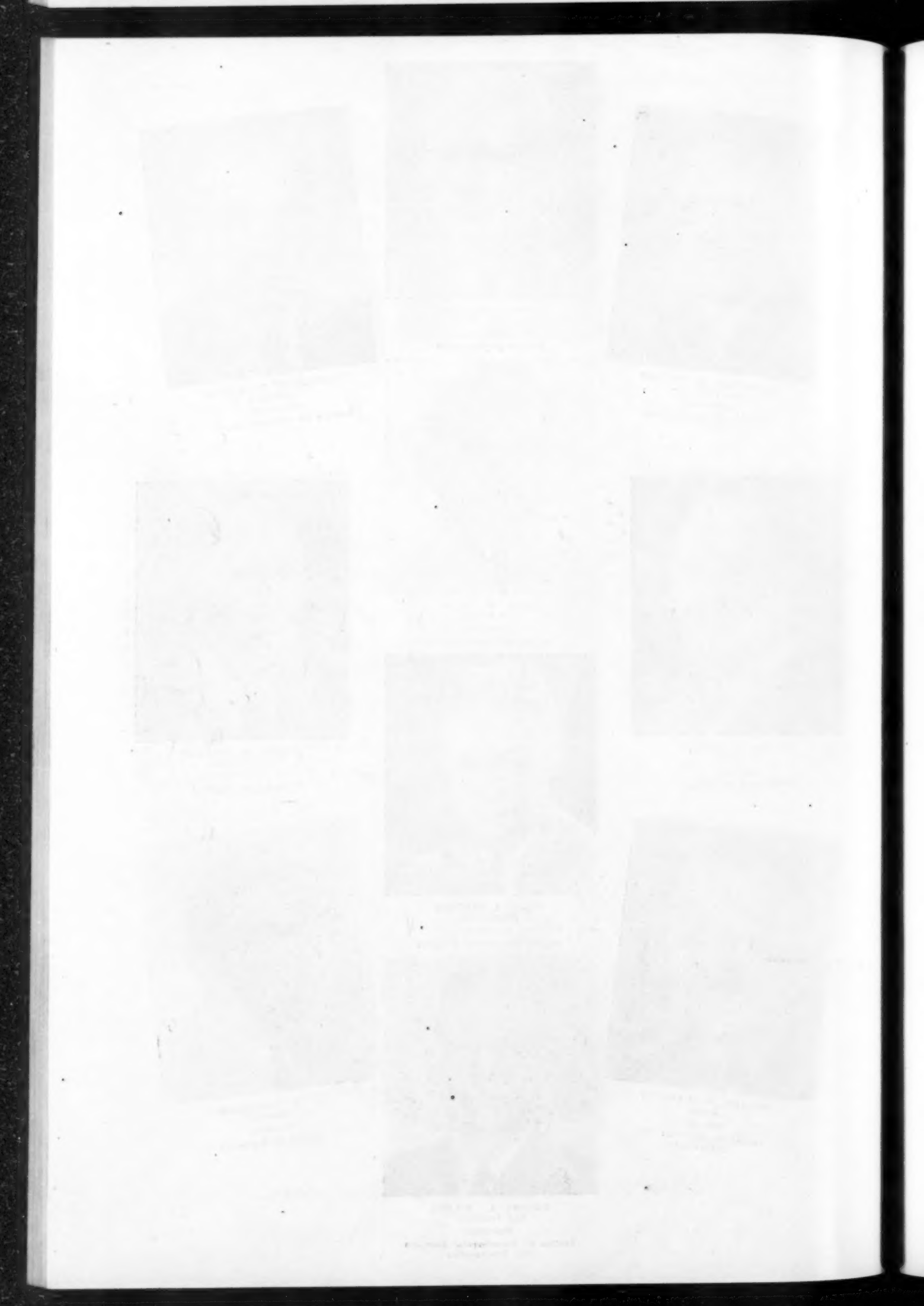

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